# Higher Education

Manchester has fastest growth rate, v-c says

Manchester University has grown letter than any other non-federal British university in the last fivo years, Sir Arthur Armitage, the this recel:

this week.

In his annual address to the university court, he sold that between 1972 and 1977, the university had expanded by nearly 1,950 students to a rotal of 10,722. The annubers of students in the faculty of medicine had doubled, and it was now the higgest in Western Europe, producing 275 doctors a year.

producing 275 doctors a year.

He also sold that the proportion of science and technology students had risen from 45 per cent in 52 per cent. This expansion in costly subjects had been achieved at a time of financial austerity, when the value of universities income per sindent had fallen by no less than 13 per cent, and ut Minochester by 15 per cent in real terms.

Sir Arthur paid tribute in the

Sir Arthur paid tribute in the dedication and loyalty of suff who were coping with the growth at a time when they themselves were the "victims of grave injustice", with their salaries 20 per cent be-low what they should be.

Demand from students continued to graw, Sir Arthur continued, Applications for places this October ware up by 10 per cent over last year. He expected Alanchester's total number of students would vise from 19,722 to 196-81, no which 9,200 would be undergraduates. would be undergraduates,

llo edded that he did not think the espected full in student demand after that date would be os sherp as crude population statistics sug-

Commenting on the university's lioks with industry, the vice-chancellor said that in the past year the university had recoived over £2m in grants from ourside bodies for 16% part supersity by the university had be not a supersity by the supersi for 168 new research projects, and 50 new roscarch consultancies hud



strength of our research settivity", he said. "Commet research, consulrancies, testing facilities and the pravision of intensire post-experience courses are all ways in which the universities are directly assist

Sir Arthur copplusized the importance for research of a deal system of support from research councils and from the University Grants Committee, Research should system of support from research councils and from the University Graphs Committee. Research should not be squeezed out by teaching or by cuts in the budgets of research councils. "It is important also that equipment grants should be made and former lack to councils. "It is important also that equipment grants should be made and former lack to councils. "It is important also that equipment grants should be made and former lack to councils. "It is important also that equipment grants should be made and former lack to councils." It is important also that equipment in the says any 7.8 per can of the 408,000 extra reachers helived 408,000 extra rea

## NELP faculty may merge with independent study school

North East London Polytechnic may merge its foundering faculty of arts and its ropidly expanding school for independent study. The controversial plan, still under

debate, has been forced on the college by the Government's proposals for a curback in its teacher training intako and by the repeated refusal by the Conneil for Mational Acodemic Awards to validate its degree course in humanities.

It was suggested by Dr George Bussin, the polymerbalous discontinuous

In was suggested by Dr. George Brusan, the polytechnic's director, in a report to the gurerners in March. He elainted that the college's faculty of arts offered too few courses able to attract students, while the school for independent study was well able to keep its intake busyant.

He added: "This has actual and patental inferences for staffing.

patential inferences for staffing. The faculty of aris is potentially Inderestindential or over-staffed, while the converse applies to the school for independent sendy."

Under the Government proposals the faculty's department of education will take its last students on to

currently offers only one degree, a BA in social studies—modern Fronce, which Dr Ilrasun in his report quantained land "not been diffractive to students". No students

and II last Sentember. Hones that the CNAA validation of the deportment's degree in humonities would "sove the day" hove now been lost. Dr lirosan's report said: "The department has now been told by the CNAA that it is not prepared to approve a degree in humanities which was recently submitted for the fourth time by that department.

"This proposed course has a long and uniformly unfavourable somewhat different form by the then Barking Regional College (a constituent college of the polytechnic)."

A BA English studies programme to teacher iraining will be limited to 100 postgraduate and postliplowa students.

The department of humanities best fall-time Diploma of Higher Education in the past three years.

Response 40 its newly launched degree by Independent study and puri-time Dipille hos olso been huoyant.

## Jobs 'unaffected by birthrate'

The falling birthrote is not an the profession. Important factor in the pressure. Over that period the number of

## Polytechnic names director



Mr George Scabrooke

on other two were announced yes terday (one at a polytechnic und ane at a Scottish university) and the larget is to have 20 in operation by 1982. Mr George Soabronke, depails tor of North East London Re-Wolverhampion Polytechnic to lenther on the retirement of the Rubert Scott.

by 1982.

The aim of a teaching company, according to the SRC and the Dal, is "to provide the engineering equivalent of a teaching hospital, where experienced practitioners, researchers and students intermingle and cross-fortiliza ideas while doing a job in a real environment."

All the teaching companies so Rubert Scott.

Mr Seabrooke was a leaser South West Landon College Ender becoming a principal leaser Nottingham Regional College (Technology to 1962. Three pelatter he was appointed head to partment and when the college come Treat Polytechnic in 1865 was promoted dean of school be tack up his present oppointed at NELP in 1973. environment."

All the teaching companies so far have been based on a partnership between so individual university and an individual farm. Young engineers receive postgraduate training under the supervision of ludustrial and academic staff, working on real projects within the firm.

## Professor Johnson dies

Professor Harry Johnson in ecommist and former Lake. School of Economics teacher, & this week in Geneva. Profes

prenty of £135,000 and £139,000 repoctively over four years.

Proposals from another two tuilversities and two polytechnics are
under discussion, and onnouncements are likely to be made in the
autum, Dr Nicholas Lowrence, the
ERC's teaching componies offirer,
and, . The DoI and the SRC are olso considering whether to set up a small central body to coordinate the

The two new componies will be Lesicy Products (toy makers and elecaters) with North East London Polytechnic, and Anderson Strain-clyde (manufacturers of mining and industrial equipment) with Strain-ledge (minerally Way will strain.

diddinial equipmenty with Strategies elyde University. They will receive grant of £135,000 and £139,000 re-

May 20, 1977. No. 291

for teaching

The Science Research Council and the Department of Industry are to spand 13m each over the next five years to expand the teaching cum-

puny programme.

Fivo pilot schemes were started by English universitles in 1975-76,

companies

small central body to coordinate the teaching companies progrommo and give help, advice and publicity when they are needed.

The NELP/Lesney scheme will be controlled by a management committee chaired by Lesney managing director Mr Ron Martin; director of studies will be NELP's dean of angineering, Mr Ilm Proctor, includily two "industrial succises" (age 24-29, salary up to 44,000) and two "senior industrial succises" (age 27-23, salary up to 4,000) and two "senior industrial succises" (age 27-33, salary wound £6,000) will be eppointed on invoyear constracts, and a totol of its ordinery and four scalor associates will be employed during the line of the same of the same

that four years.

A similar university/company toumlittee will run the Strothelydo poiect. The university will attach a sutstanding postdoctoral research engineer to the company for the years, as well as recruiting the graph of the company for the years, as well as recruiting the graph of the company for the years, as well as recruiting the graph of the company for the years.

by Strothclyde end NELP In-Servent to be benefits of their essociation with reaching compenies to be but by all students end staff in the departments concerned, not just by by Judith Juda

by Judith Juda

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by Judith Juda

Local authorities have used about

Solve in-service training for other purposes according to a survey carried out by the National Association of

Schoolmastors/Union of Women

Teachers.

Livence soys, but universities and the second attention of the case of the cachined are Aston, Manchester sallerd, Loughborough and Technology, the case of the cachined are Aston, Manchester sallerd, Loughborough and Richard.

# £3m expansion Universities 2 per cent worse off next year than predicted

THE TIMES

Higher Education

SUPPLEMENT

The universities' recurrent groot for next year implies a cord real torms of 3 per cent and not 1 per cent os announced by the Government, according to latest prodictions from university finance officers.

In estimates submitted last week to the Committee of Vice-Chancellors and Principals, finance officers calculate that with a 5 per cent increase on salarles and 12 per cent increase on non-pay items, as allowed for in the grant, they will suffer a cut of between 2.5 per cent and 4 per cent in real terms compared with this year.

Sir Prederick Dainton, chairmant of the University

of between 2.5 per cent and 4 per cent in real terms compared with this year.

Sir Prederick Deinton, chairman of the University Grants Committee, is to meet with vice-chancellors today to discuss the discrepancy in the figures.

Rumours of what the reduction in the grant would be have abounded since lest autumn, when the UGC estimated it would average between 3 and 4 per cent. When it was finally announced in March, Mrs Williams, the Education Secretary, said the figure represented a cut of 1 per cent in real terms.

One auggestion this week was that the discrepancy may have arisen from the different methods employed by the UGC and the indiversibles is calculating the cut. The UGC is likely to have taken the difference between the universibles if accome (grant plus fees) for 1976-77 and their income for 1977-78, less provision for infilation.

But universities are likely to have compared their expenditure for 1976-77 with likely expenditure for 1977-78 if all commitments are maintained. Certain commitments, such as staff taken on helf-way through the year, or naw buildings only heated for part of the year, might involve more spending when considered on the hasle of a full year.

Enst Anglio University has estimated in cut of between 2.5 and 3 ner cent, helfore toking into account the impact of hieremental drift (the cost of paying

annuel salary increments); Leicester: 3.5 per cent (£280,000), Reading: 3.1 per cent (£420,000), Hull: just over 2 per cent (£170,000), and Glasgow: 2.5

per cent.

One finance officor said the difference between a reduction of i per cent and 3 per cent was extremely serious. There had been a cut of 2 per cent ocross the board because of the much lerger share of the recurrent grant given to medical schools, he said. In addition, the UGC had not taken into account the cost of incremental drift, which odded another 1 per cent to the cut.

cost of incremental drift, which odded another 1 per cent to the cut.

Mr Laurie Sapper, general secretary of the AUT, said, however, that there had been no incremental drift overall, although some individual universities may have suffered it. Taking the universities together, there had been incremental ebb (a drop in the cost of paying increments), and this had been agreed with the UGC and Department of Education and Science.

Commenting on the estimated shortfell in the

sud Science.

Commetting on the estimated abortfall in the grant, he said it arose because this year's recurrent gront was based on an inflation rate in single figures, which was forecast by the Government at the time the grant was sottled. Inflation had rue into double figures, however, so the basis for working out 1977/78 grant was already inadequate.

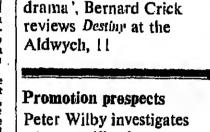
The recurrent grant for 1977-78 may well imply a cut of 7 or 8 per cent, Professor David King, president of the AUT, said in his opening address to the association's annual conference in Liverpool this week.

week.
Attacking what he called the "absurding of the cash kindt system", he said that it had not been made clear on what basis the figure of a 1 per cent cut had been calculated.
"The figure (for the grant) was fixed well in advance of the settlement of pay awards. For acasting the new pay policy out the rate of inflotion this far chead is simply not feesible."

Vet our course for Marxist

bias, Mr Miller asks CNAA

Mr Terenco Miller, director of pennized.



Nothing is more dramatic

than politics except good

**Contents** 

Socialist drama

what qualifications are necessary for promotion and how much room there is at the top, 9

#### Judgment day

David Martin reviews Paul Johnson's new book Enemies of Society. 16

#### Medical schools

Doctors can earn much more working for the NHS than teaching. reports Clive Cookson in the second article of his series, 7

#### Local Government

He added: "It seems to me that the so-called 'democratic' decision-making arrangements, so clearly favoured by a majority of academic staff in the department of sociology are likely to lead to a self-perpetuating system strongly and permanently bleed in a single direction." Professor G. W. Jones discusses responsibility and local government finance, 15; leader, 14

## Teacher education

Richard Layard puts wunt spent | forward nine proposals for

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John Ladbrook

## A "REVIEW OF NEW COURSES" FEATURE

North London Polytechnic, has asked the Council for Notional Acedemic Awards to vot his college's sociology degree course for In o confidential tester to Professor Stephon Cotgrove, head of a CNAA visiting purty to the poly-bechnic earlier this menth, he called for an investigation "to establish whether any such problems are in any way reflected in the teaching of this degree or in any associated

NB to Exemiser. If you find above poper too left wing, pleaso see reverse sido for right-wiog version.

The controversial request, which has mat with criticism from staff and students, follows the publication of an open letter by third-year sociology students to Mrs Caroline Cox, head of the sociology department, voicing fears that students.

In-service money 'spent elsewhere

by Sue Reid

The Postgroduate posts will be adjusted widely, and polytechnic reposts from top quality enginesis. Those eccepted will probably lesser litially for an MSc degree, it is a PhD.

The live pilot teaching companies, loudilly were given three-year grouts fulfilling 1600,000, have inevitably lessers as the essociation denouses of the live pilot teaching companies, loudilly were given three-year grouts fulfilling 1600,000, have inevitably lessers as the essociation of the local authorities which have swollowed up f5 m with nothing but an offeusiva burp in the direction of teachers who badly need in-service training and loduction.

The Government gave an additional approach of the local authorities which have swollowed up f5 m with nothing but an offeusiva burp in the direction of teachers who badly need in-service training and loduction.

Loughborough and Birmlug Eighteen of the euthorities in the leader, page 14 survey improved their spending on

in service training this year. If these 18 are typical the escociation calculates that the extra suio spent on such training will be £24m.

But, the survey poiots out, they are not. Fifteen authorities decreased their apending. The importance attached by authorities to inservice treining varies dramaricelly. Different authorities compute their spending in different waye. Even so the aurvey bighlights the position in Knowsley compared with that in the Inner London Education Authority. In 1976-77 it spent only 87p per teacher on inservice and induction whilst the ILEA spent 19964.

The tables show that 10 local country is the countr

Cloucestarshire the amount spent has decreased by 58.4 per ceut.

The euryay says: "Not all locel authorities are to be denounced as our tebles show, but the evidence wa present must lead to spoculetion about the wisdom of leaving total control of educational epending in the hauds of local authorities."

The authorities where there has been an improvement according to the euryey ere Bedfordshire, Rochdale, Knotysley, Kent, Sunderland, Kangston, Havering, ILEA Birmingham Northamptonshire, Doocaster, Hillingdon, Haringey, Suffolk, Avoo, Caiderdale Gwynedd, South Tyneside. ucestarshire

pennized.

Mr Miller's letter to die CNAA, prior to the visit to consider a resubmiesion of the BSc degree, stated: "You will oo doubt have been following recent public debots on the overcmphasis of soroa viewpoints in higher aducation and the lack of edaquate attention to others. I refer, of course, to major concerne which have been expressed at alleged excessive emphasis on Marxism."

Mr John Stoddart, cheirman of one of the council's most active boards of studies in recent years—business studies—said colleges of course options they had chosen of course options they had chosen instead there should be free debate within the council's boards of studies.

Business studies was unlikely in expand much more, he said, so it was a good time to take stack of degree work validated by the CNAA and its relation with lower level work now under the responsibility of the Business Education Council.

Business studies in the polytech-uics tacked a philosophy, Mr Stod-dart argued, but this had allowed fruitful development of the subject. He hinted that the BEC might find it difficult to set out a coherent definition of the subject and then definition of the subject and then impose it on the various diplomas and certificates if validated.

This diversity accommodated business studies degrees that were heavily reliant on teaching from the social science disciplines and those, such as et Manchester and Sunderland Polytechnics, which were more practical.

Instead there should be free debate within the council's boerds of studies on new courses and the resubmission for validation of existing courses.

Mr Stoddart, who is director of the recently formed Hull Collage of Higher Education, spoke about the recent history of business studies, a subject that hos mush runned la recent years. One index of this was that the CNAA was shortly receiving 12 resubmissions of courses for its approval.

Business studies was unlikely in expand much more, he said, so it was a good time to take stock of different sorts of different sorts of sudders of different sorts of sudders on students. One cancern voiced by participants at the conference, held in the Trem Polytechnic, Nottingham, concerned relationships between the CNAA and the BEC and hetween degrees within the colleges. Mr John Lines within the colleges, Mr John Lines of this was that the CNAA was shortly receiving 12 resubmissions of courses for its approval.

Business studies was unlikely in expand much more, he said, so it was a good time to take stock of degrees work wallidered by the CNAA.

Some suggestions for closer con-

Some suggestions for closer con-tacts between reademics and indus-try emerged. Mr Stoddors said the CNAA would fully endorse moves to make local hustnessmen associate lecturers on college degree courses, This would be an excellent way of

tapping their experience.
Similarly more college stull should spend time ht hadvery.
Sabbatical years might be taken in an industrial or commercial office. Some criticism was expressed in the regional mangement centres he cause they had interposed themselves between business studies teachers and local industry.

The Nottingham conference was accounted by new room of teachers.

organized by e new group of teachers in the field, the Business Educe Teachers' Association

Universities continued

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and groding students' written assignments, for taply-ing to quartas about students' work and lot conduct-Ing lutorials, normally at local study centres.

TUTOR COUNSELLORS have dulias similar to Course
Tutors in relation to the lution of a group of students
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perhaps one avening per weak or its equivalent for most of the year. Appointments will, in the list instance, be tanable for one year.

Applicants should be graduates or guiduste equivel-ant Recent teaching expetionce in turthet adult or higher aducation is highly desirable. For certain courses industrial expensance would also be an

To obtain application fours and luther particulars send o POSTCARD to the Turors Ottlee (THES), The Open University P.O. Box 82, Walton Hall, Milton Keynas, MK7 6A.U. Enily application is advised and complated application to tune should be submitted to one of the University's Regional Offices by the glosing

It should be noted that it is likely that existing numbers of the tutorial and counsolling stall will be respicinted to mony of the posts on continuing courses. There has been no previous accument, however, for the 12 courses to be presented for the first time in 1976.

(Note: Existing mambers of the University's part-lime tutoilal and course ling staff will be sent spilleallon forms before the and of May, as a matter of course.)

# bankrupt universities—v-c

by David Walker

Colleges should be more confident when submitting degree proposals to the Council for National Academic Awards. They were in partnership with the conocil rather than subordinate to it, a conference on the design of course submissions was told this week.

Mr John Stoddart, cheirman of one of the council's most active beginning of studies in recent years—and he control of their submissions was told this week.

Mr John Stoddart, cheirman of one of the council's most active beginning with pay rise, in 25-35 per cent will lead a distinction between business and management studies, the one academic heart of practical experience and the latter than subordinate to it, a conference on the design of course submissions was told this week.

Mr John Stoddart, cheirman of one of the council's most active beginning to the colleges to monitor more closely the destinations of their submissions was told this week.

Mr John Stoddart, cheirman of one of the council's most active beginning with pay rise, in 25-35 per cent will lead to be independent to mental the above a submission was told this week.

Mr John Stoddart, cheirman of one of the council's most active beginning with pay rise, in 25-35 per cent will lead to be mile submissions, was told this week.

Mr John Stoddart, cheirman of one of the council's most active beginning with pay rise, in 25-35 per cent will lead to be mile submissions, was told that any of the submission was told this week.

Mr John Stoddart, cheirman of one of the council's most active beginning with pay rise, in 25-35 per cent will lead to be mile submissions, in mile submissions, in mile little data to be not resident to be ental that a very submission with pay rise, in 25-35 per cent will lead to be expended in the latter of the submissions, in mile submis

at Lancaster, an overall rise of the sellowed for, he spid. Inflation was more than 10 per cent and the Government had indicated there was a chance that cash limits would be readilized.

Mr Curter went on in say that the university's caution in the loss two years now meant that it could also afford a small unionit of extra spending to pay for seven or eight

said that only o few pusts are likely to be established, although student aumbers would continue to increase.

In the last five years (1972-1977) In the last five years (1972-1977) the student papulation had grown from 2,900 to nearly 3,500 because af expansion in some schanls and the setting up af the new schools, development studies and computing studies, which bath admitted students in 1973. The student target for 1981 was 5,000 for 1981 was 5,000.

pasts.
The university was starting the year with high balances. Some of these had already been allocated, such as £60,000 to remission of fees and £90,000 to a library reserve final. But there was about £65,000 which would be divided between the new posts.

The lang-term financing of the MA in social work, which started last October, had caused problems. Dr Thistlethwaite said. The decision in abandon the 1977 intake caused much criticism but it was necessary to give, the university a breathlag space. Now there was a scheme for the new posts.

The university also had name and financially viable, although it maney for equipment next year, as its grant was rising from £270,000 a bicannal intake of students for the about £365,000 next year.

### Obituary

## Great economist who scorned national chauvinism

Professor Harry Johnson, economist, died on May 8 at the age of 53 and bagger, falled significantly in pensitive perfectional who worked unceasingly and with great impact in the scholarly devolopment of this subject to which he dedicated his

One of the truly great internationalists in the economics profession, Johnson (a Canadlan by birth) held chairs in Canada, the United States, Britain and Geneva (concurrently as wall as sequentially) and was sectraful of national chauvinism both in its economic and in its political guise. Impressive physically, and an intellectual force of the highest order, Jahuson as an economist evidenced the characteristics of a John Wayne or an Orsan Welles in this self-assured fight to improve the quality of his profession. His many papers and looks (well in excess of 400) figured like notches on a guin as a seldonnotches on a gilli as a seldon-challenged justification fur his attacks on the lary and the incom-petent, the projudiced and the pre-conditioned, as he encountered illent on his ceaseless travels.

Naver were these quelities more evident then during his last stay in Britain as professor of economics of the London School of Economics from 1966 to 1974—the period which confirmed Britain's decline to second-class status—charocterized by interpretables generalized policy.

second-class status—charocterized by Interventionist government palicies which be abhorred, and by the strongthened dominonce of ideology over scholarship.

Ever forthwight in his resistance and penetrating in his criticisms, Johnson was finally driven back across the Atlantic by the tax implications of the Healey budget of March, 1974. Those aconomists who acknowledge tha importance of freedom and who remain to Brit. who acknowledge that importance of freedom and who temain to Britatian—few though they ore—are dimited by his death, for there of eyet no protectionist quotas on ideas and Johnson's ptofound concern for the British economy was not attenanced by his migration.

Graduating at the University of Toronto in 1943, and following service, in the Canadian forces in Burape. Johnson first encountered that strenge phenomenon, the Cambridge (Englend) Economics Faculty with 1945. The relationship was never harmonlous and indeed, with the passage of time, it became hostile, and isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity surprising. For Cambridge is an isolated and chauvinistic lustifulity is a surprising. For Cambridge is an isolated and chauvinistic lustifulity is a surprising for the surface of the saving for the surface of the saving for the lustifulity of the professionalism of Americal-style empirical economics for the surface of the saving for the lustifulity of an economic for the surface of th

the varguard of momentarist car-nomics, and deeply concerned with the reintinuship between freedom and comomic progress, was always like intellectual home. From 1959 until his death he was professor of communics in Chicago and many at his greatest works were furged in that allowed his critical programme. in that simulating environment.

His hanks and articles, too many hy far 16 catalugue, cover virtually the full gamut of his subject. Hur his must important writings (and this must influerant writings (and claims in eminence) were in the fields of international and manerary ecanomics. At the time of his death, Johnson was developing and refluing the new manerary theory of the halance of payments, drawing upon his expertise in his two fields of specialization in a firting enhancion to an australiang career. This work together with career. This work, together with his ploneering contributions to the theory of trade only growth, to the theory of trades and to the theory of income distribution, will ensure his place in the history of grounds thought economic thought.

To some Johnson was the great synthesizer, to others the last to the great geometers, to yet others the evangelist of positive economics. the evangelist of positive economics. To me he was supreme in the wielding of Oceam's razor, in isolating the truly important economic relationships from the confusion of detail and in always remembering that economic theory is ut its bast when predicting a list from a little. Fur Johann hud no need to protect his position by the use of largon and by the devalopment of excessively complex models. Confident in his own axpertiao, he had en eye for

Charles K. Rowley of the prima

Classical Head by Gorden Scot of Sydenham and Fores hill Adult Education Institute various of the exhibits at the last London Education Authority Jubilce art show at County Mills week. The exhibition, apand by the Duke of Gloucester by the Duke of Gloucester by week, included about 300 pagings, drawings, sculptures, edings and lithographs from Her 33 adult education institute.

THE PARTY OF THE P

## £380,000 in student gram for Rhodesia

ly Alan Wood

The Government expects to ten-line 4.380,000 in grants this year black students at the University Rhodesia, Lard GoronwyRoba Minister of State for Foreignat Minister of State for Foregat; Commonwealth Affairs, hat spin, the House of Lords, he repre-land Catrington, Leader of he typusition in the Lords, he deat that the theverturent was play difficulties in the way of recom-academic staff for the universe. He said the Government with ways ready to license admin a motice urging prospective agestiums to seek official advice the the risks involved before taking emplayment in Rhodesia, buck understand that the university urities were content will t

Lard Caringum, who said to university was daing a good if recalled that their licence to said is was revoked has year said here conditions were inserted the advertisements. Was It of sert thuse conditions late the

fard Caremwy-Ruberts sold ! mairing was that advertise should early o required stanger which was re-reactable and helps This was the statement:

"The British Covernment up that Pulted Klugdom aslicialty's wish to visit Rhodesia or to the up employment there should co-sult the Principa and Commonwell Office Plantagia Descriptions or his Office, Rhodesia Department, and mearest British Consular office dore thing so."

This was o natural precault both in the interests of prospedition applicants and to keep British within the terms of the interest

lle soul that the Governme grently appreciated the content work of the university to his and in the present as a mulicular institution and they hoped to said be able to content to making the content to the present as a mulicular institution and they hoped to making the content to the making the content to the making the content to be able in curry on its makes function in the future makes form of government in Rindership proved to be

ford Courlington called he the firmation that the Governmental altered the revocation of the less ebout which Sir Hugh Spring life and the life and

## 'Witch hunt lecturer' angered head

Callege, Swansea, said.

But while he admitted telling her that she was being "not quite straight" in putting forward an ahernarive course to that of her Maxist colleague, Mr Graham Holderness, he dealed calling her "uaderhand, disruptive ond defent"."

"uaderhand, disruptive ond deflant".

The tribunal la Cordiff was hearing on action for unfoir dismissal brought against the college by Dr Pryor. Sho claimed that Mr Sims had cast o slur on her professional character sad had refused to apologize. After o dispute lasting eight months, she resigned because she cauld not go on working with these oflegarious hanging over her.

Mr Sims accepted that Mr Holderness may have used Marxist theories in his teaching but said that this was at an acceptable level and ant propa-

advisory body,

The Mature Students' Union is to

haycout the new Advisory Council for Adult and Continuing Education

because it fears it will be inothless.

The union decided nat in seek

representation on the council at its

conference this week. In a state-

ment issued afterwords it expressed

unease at the direction the council

students cauld have little effect on

would follow and at the fact that

There was also concern about the lack of financo lumlying that the council is likely to cuncentrate

on the deployment of existing re-sources reduct than new initiatives ".

Other reasons for the union's

daubts were that students on the

council would not be there in a

representative capacity ond that the

list of bodies from which the mem bers would be drawn showed a blus towards those more interested in training than in educotion.

"The success of the council will

in the long term, depend on irs final

compositing, the areas it decides to take up, and the importance attached to it by the secretary of ease.

"However, on the information at present evaluable we have sarious doubts as to its possible effectiveness in the short term."

Mr Ookes, minister of state for higher education, said on Saturday that national prosperity on the declining birthrate in the 1980s could lead to expanded opportunities in shult education.

The colleges of education which remain could make an important contribution to general educational opportunity by uffering part-time sof further aducation courses. This would be every worthwhile axpaniorations where alternative facility are either sperse or not exist.

Mr Oskes also suggested that greater use of educational technology was essential fur the future of continuing education.

could lead to expanded opportunities in sdult education.

Giving the Albert Manshridge lecture of the opening of the new Adult.

Education Centre of Laeds University, he asid that colleges of adult and for other education of purposes would put odult and continuing education.

Education Centre of Laeds University and the AUT, sand; "Many university and the Brilish system is patterned on what Oxford and Cumbridge were like some 40 years ago. They ignore the fact that we have probably the college.

didetes for such focilities.

| Tichest vericty of university institutions in the world."

the top major licence revenue are in the top major licence revenue and are either sperse or non-exist alone—Cephelosporin, a drug devel-

oped by Oxford University and the Medical Research Council, and the

Industry did contribute towards university research, but the figure of f6.6m wes small compared with the British grada structure elone bas only one grede el jecturer level. In some cases in Europe, the 'pro-figure, for a hardship the base of feet was elso research in medical end allied fields, such as that researchers, teachers only and into die couse of cot deaths, at New researchers only.

students say

by Judith Judd

his from within.

Boycott adult | Scots petroleum centre opens

The head of a Swansea University department got augry with a lecturer because he believed sho was launching a witch hunt against a colleague for his political views, an industrial tribunul was tuld last week.

Dr Ruth Pryor had objected to her colleague's teaching because she thought he used it to expound she thought he used it to expound she thought he used it to expound who was actiag head of the department of English at University Callege, Swansea, said.

But while he admitted telling her that she was being "not quite straight" in putting forward as alternative course to that of her Marxist colleague, Mr Graham Holderness, he dealed calling her licialized and sociological coatent. "She offered to bring before me about the undestrable quality may professional conduct."

The vice-principal of the college, "Tofessor Glannor Williams, told the tribunal he had interviewed both Mr Sints and Dr Pryor In on that to me by one lecturer to complain about snother. That straight in putting forward as alternative course to that of her alternative course to that of her licialized and sociological coatent. "She offered to bring before me about the undestrable decanse of Mr Holderness replied: "No. I have to may professional conduct."

The vice-principal of the college, the vice-principal of the college, the time about snother. That the tribunal he had interviewed both Mr Sints and Dr Pryor In on uncline. "It was not having students course in the wrong wow," he said she had gone about estoblishing her course in the wrong wow? "He was prepared to offer an allow a witch hunt in the department the principal content."

The vice-principal of the college, the vice-principal of the college. To college the tribunal was tulents who would apparently tell me about the undestrable quality. The vice-principal of the college. The vice-principal of the college. The vice-principal of the college. The vice-principal conduct."

The vice-principal of the college. The vice-principal conduct."

The vice-principal of the shift reaching would rega

Mr Holderness denied that he had used his lectures to spread political propaganda although he said he was affluenced by Marxist philosophy. The told the tribunal that Dr Pryor had issued details of her proposed course at a deportmental meeting ha adacument which said "this course is intended to offer an observative to courses that teach Victorian literatura through sociology."

This was widely interpreted as a cuphemism for the teaching of

Britain is now an innovator in petroletim engineering, Dr J. Dickson Milion, Minister of State at the Dopartment of Energy, said lost Friday when he opened a new building for the department of petroleum engineering at Horiot Wott University, Edinburgh. He is pictured (top left) with ford Home, the university's chancellor, and Professor James Brawn, hend of the department. The new building was funded by a £300,000 Department of Energy grant and by the oil lodustry.

Universities contribute £350m

Universities contribute about £350m a year to industry, eccording to the Association of University Teachors. A memorandum sent this week to the Department of Education and Science says this comes from Inventious, the training of engineers and plud mechanical problems of pipe lines a

ich in 1975-76, more than 500 university inventions were untified to the National Rescerch Development Corporation, which hendles research developments with potential uses for industry or commerce.

University inventions ere than 500 university inventions were untified to the National Rescerch Development which hendles research developments with potential uses for industry or commerce.

University inventions ere than 500 university inventions were untified to the National Rescerch Development with potential uses for industry or commerce.

University inventions ere than 500 university inventions were untified to the National Rescerch Development with potential uses for industry or commerce.

Medical Research Council, and the PAM electric motor, developed at Bristol University—heve brought in sales of tens of millions of pounds.

Industry did contribute towards

Industry did contribute towards

"Following a period of great expansion in higher education in the lest decede, the ocademic profession

Universities contribute about £350m castle University, and in the of

a year to industry—AUT

nly professional conduct."

The vice-principal of the college, Professor Glaumor Williams, told the tribunal he had interviewed both Mr Sims and Dr Pryor In on unempt to mediate. "Mr Sims admitted he might have spoken harshly and offensively but he said she had gone about estoblishing het couvse in the wrong woy", he said. "He was prepared to offer an applopy for speaking harshly and affensively in the heat of the atoment but he was not prepared to withdraw the substance of what he had said."

But Dr Pryor demanded a system

## | Hardship fund attacked as 'grossly inadequate'

A gramp of 29 universities and uni-versity colleges have called on the Government to bear full responsi-bility. hility for students who have diffi-culty meeting new levels of mitinu-fees in October.

In a strongly worded statement, agreed at a special one-day conference last Friday at Bradford University, the universities attocked the increases and sald maney provided by the Government for dealing with cases of hardship was "grossly in-

All students who lieve started on a university course should be able to complete it in accordance with their original reasonable expectations of the cost, they said.

"The financial consequences of changes uollaterally imposed should be borne in full directly by the Government, in addition to the University Grants Committee recurrent

The group called for one level of fee for home and oversess students, particularly at postgraduote level. The Government should begin immediate discussion on its please that the differential would eventually be placed out.

They expressed concern ebout the effects of the increeses on the 10,000 British undergroduata students unable to obtain o mandetnry gront. Many of these would be excluded by the new fees. Some chuld not poy existing fees.

Postgraduate education and re-scarch would also be heavily damaged by the increases. Post-graduate students' difficulties in obtaining grants or industrial spon-sorships would be increased to "an unneceptable degree" and few, if any, self-supporting students would be able to continue.

The damage would not be less in science and technology, which thu Government wished to eacourage,

they soid.

The group proposed that fee income should not provide more than 10 per cent of universities' total income. They opposed any quota system for overrops and device who

income. They opposed any quota system for overseas students who, they said, should be admitted on academic grounds. They were elso against only further fee increases to 1978-79.

No future major chonge of policy should be made without full consultation, they said. "In no other walk of life would Government proposals with such massive implications be imposed uniferently with.

tions be imposed unilousially without widely bosed discussions."

The 13 points are now to go before die schates of the universities for consideration and approval, and to the Committee of Vice-Chanecllors and Principals, in the hope that they will stimulate a wider con-

forence.

A note of dissent was attached by the New University of Ulster, who said that while the university was in broad sympathy with a number of the resolutions, it could not give them unqualified support in their present form.

## More rich students expected

The new fees levels in Ocrober will rapidly lead to more rich students in universities and polytechnics, Mr W. H. Beele, executive secretary of the United Kingdom Council for Overseas Student Affairs, warned last week.

Mr Beele was speaking at the London Conference on Overseas Student Council for Overseas Student Affairs, warned last week.

Mr Beele was speaking at the London Conference on Overseas Student Council for Overseas Student Council for

Affairs, warned last week.

Mr Beals was speaking at the London Conference on Overseas Students, attended by some 80 representatives of educational institutions and welfare organizations which deel with overseos students, and speakers outlined ways of handling lundship funds, and speakers outlined ways of handling lundship funds in the collegiate council, London University, said that at London there was no hardship fund administered was no hardship fund administered centrolly by the university. Schools would have their own procedures. At one school this involved applications for remission of fees going through two tlats of selection.

Mr D. W. Coe, essistant directure (student effairs) or Middless Poly.

Mr D. W. Coe, essistant director (student affairs) of Middleace Polytectiule, said there were two main proctices at his polytectinic for easing hardship over fees. Students or they could apply to the fees panel for a remission of part of thair fees.

Mr T. J. Rutter, doputy controller, home division, at the British Council, played "dovil's odvocate" and outlined reasons why the Government could oot provide more money for hardship funds.

Both the British Council and the In the present session, Mr Cus said, there would be a total of 80 operated within strict cash limits, he said. If the British Council and the Foreign and Connornwealth Office operated within strict cash limits, he said. If the British Council set panet. Less than one per cent of the polytechnic's total fee income of flut would be romitted by the only do so by closing its activities in some centres or curtailing programmos with some countries.



## **OFFICINA FERRARIA**

A Polish Poem of 1612 describing The Noble Craft of Ironwork

> trauslated by Stetan Pluszczewski editors Waciaw Rozanski & Cyrti Stanley Smith

This poem was lost soon ofter his publication in 1612 until, in 1929, a slogte copy was discovered. This excited injense loterest in Poland for the evidence it cootales relating to the development of Polish titerature, the language listef, social customs, and the region's history. It is now being published to English because it reveals so much about critical junctures in both European economic history and the development of metallurgy. This first hand eccount of the bloomery hearth process, already in 1612 something of an anochrootsn in Western Europa, describes in dentil the fund level of technical development that this process was to stain. Published May, 1977, £9.40.



The M1T Press 126 Buckingham Pulace Road London SWIW 9SD a de constituto de la compania de l Compania de la compa



## Schools can help pupils, Bristol study shows

Despite passimistic American findings a new Bristol University study block, taken on its own, had any suggests that, in certain circumstances, individual schools catanaka a significant contribution to blook with others. nonka a significant contribution to dicir pupils achievements.

The Bristol study, based in this The Bristol study, based in this school of education research unit and financed by the Carnegle of the Carnegle of the Carnegle of the Carnegle of the Corporation, is part of a schemic covering Britain, the thined States and the Irish Republic. The aim is the teachers were, in general, herefore out some of the conclusions reached by J. S. Coleman, at some reached by J. S. Coleman, at the J. S. Coleman, at some reachers were, in general, here the schools and the first group of species, the pollinator wasps." each female and the life schools and the life schools and the schools and the life schools are schools and the schools are schools and the scho Johns Hupkins University, and Christupher Jencks, of Harvard University, in their study of Ameri-

Coleman and Jencks reported that very little of the variotion has

nosparchers used O-level resides.

Because the examinations predictor.

demended specific knowledge, it was thought that these might show up differences between schools in meths, a subject where teacher in meths, a subject where teacher in fluence was particularly marked,

ceot).

The rasourchers tried to explain the variations rhrough five blocks of choracteristics—teacher cheracteristics (such as ege, sex, experience, quolifications and feaching styles), echool characteristics. tios (size, typo, sex, social class composition, pupil-teacher retlo, inhoratories), pecantal bockground composition, pupil-teacher retto, faboratories), pecantal bockground (fathar's occupation, parente' eduction, help given with echool work), individual pupil cheracteristics (espications, self assessment of brightness, time epent on study), and the pupils' parceptions of their schools (strictness, emphasis on behaviour and acedemic euccess).

These predictors accounted for meanly ell the varietion between the achools' cesults, though they generally accounted for less than a third of the verietiun within schools.

correleted with high achlavement.

Parents, however, should not conclude thet the ideal achool is one with many unused audio-visual aids. The Bristol researchers emphasize that the results cannot be used to make generalizations about British schools.

Whet they do show is that a multitude of interesting veriables contribute to pupil echievement and that, among these, the characteristics of lodividual schools and individual teechers may pley a purice important role than previous studies have suggested.

6

F,

Ç

Which characteristics had the

The analysis then chowed that parental background was the least accurate predictor of differences herween the schools' achievements

mistry, maths and Germon.
When the tutal seplained varia-

that very little of the variotion has tween children's educational performances was attributable to differences between schouls. The apparent contribution of extra taschers to seademic performance was negligible. In some cases, better school facilities appeared to have negetive effects.

Tha impoct of Coleman's findings, published in 1966, was so great that sducation in Nurth America hae had to satuggls for increased public funding every since. In portleular, the cause of positivs diocrimination in favour of poorer children received a serious setback.

The Belatoi teom, headed by Professoc Alen Brimer (now professor of education et the University of Hang Kong), set out to replicate Colaman's research in a more specific and limited field. Where Coleman used general tests of verbillar and atunerical shilly, the Bristol resourced to the expect, and individual choracteristics must reflect family choracteristics must reflect family choracteristics, and individual choracteristics must reflect family choracteristics must reflect family choracteristics, and individual choracteristics must reflect family choracteristics must reflect fami

fluenco was particularly marked, high echievenish was associated with specialized teachers, who did not teach in other O-level subjects, and five times as much vorlation in results within the 44 schools in the sample as there was between their. The greatest between their teachers were in maths (42 per cent) and English language (37 per cent) and English language (37 per cent).

produce a picture of the "ileal teacher".

One of the most curious results was that the use of film and talevisinn, where eignificant, was always associated with low echievement. Yet the evailability of audio-visual aids (a echool characteristic) was correleted with high achiavement.

Parents however should not conof cave surth. Since the curth's mog-nstic field changes with time and t since the field reversed itself et l known intsivals in the pest, it is often possible to date not only speci-fic levels but also to establish a serial record of time through the antirs deposit.

So far, Mr Stavros Papomarine-poulos, a research student in the

## Females hold clue to fig wasp behaviour

Two types of fig wash live ingether amongst the wild figs at Brazil, in one the males share the females

were turity attentions. In account of the mates are targety camples and states of the predictors were with brothers to mate with sloters, gists to sort out.

The influence of the teachers was particularly marked in French, chsum of the same parents. They can be same parents. Th

Skull 'may

European'

by Frances Gibb

Scientists at Edinburgh University ere trying to establish whether o human skull found 15 years ago in a Greek cave could be that of the first-known European man.

The skull, found in Petrelono Ceva south of Solonica, was originally thought to be Neanderthel, a race which lived between 11,000 and 35.000 years ago.

Solution and between 11,000 and 35,000 years ago.

Dr Arls Poullanos, lised of the Greek Anthropological Association end the cove's excevator, believes tha skull is much older, which would prove thet south-sostore Europe was occupied by mon very corly.

eorly.
Togsther with the Scottish
Netional Museum, the gcophysics
ond physics dopartments of the uni-

versity are trying to supply dutes for the site.
One method, which was pioneored

by Professac K. M. Creer, head of

singly ur in small harches in different figs. The malos are less related to certain parasites of related to others within the fruit, enterpillars. They took a step and they fight viciously for the fruits scientific stardom when he forms

onoles.

Dr Hamilton (who accepts the Royal Suciety soirce lust with the comean life interprets the comean Inhel "sociabiologist") hegan the interprets the comtant of studying Brazilian fig wasps when the two working at the University of Sau Paulo in 1975. "It is an particularly clear Illustration of the company of the co Imperial Collegs entomologist Dr amazing and undiscuvered world, assonishing difference in oggressivaness can be explained by the different egg-having habits of the femules.

Or Sau Paulo in 1975, "It is an particularly clear Illustration of the amazing and undiscuvered world, recurrent problem in hiology: at dusting different egg-having habits of the femules.

Or Sau Paulo in 1975, "It is an particularly clear Illustration of the amazing and undiscuvered world, recurrent problem in hiology: at dusting the same and undiscuvered world, recurrent problem in hiology: at dusting the same and undiscuvered world, recurrent problem in hiology: at dusting the same and undiscuvered world, recurrent problem in hiology: at dusting the same and undiscuvered world, recurrent problem in hiology: at dusting the same and undiscuvered world, recurrent problem in hiology: at dusting the same and undiscuvered world, recurrent problem in hiology: at dusting the same and undiscuvered world, recurrent problem in hiology: at dusting the same and undiscuvered world, and some animals devote so make the same animals devote some animal

There are about 600 wild fig species in the world, and each one supports an average of 10 different species of mass, Dr Humilton estimutes, making a total of perhaps 6,000 sorts of wasp for entomolo-

foundion's work was exhibited in

startling examples of dimonstructure as yet discovered in any angle Brothers are so different is v. parasito species that taxonor, would place them in diffe, ooo sorts of wasp for entomologenern if they did not know, had the same parents. They are both in uggressiveness and a both in uggressiveness and a both in uggressiveness.



Greek skull ! found in core near Saluulka

by Protessac K. M. Creer, hand of the geophysics department, and Proferro J. S. Kopper, a visiting fellow in the department from Long Island University, New York, involves the use of pulseoungnotics.

The magnetic history of the sediments is reconstructed using somples of cave surth. Since the curth's magnetic field changes with time and old ond is now trying to establish the magnetic strangraphy.

At the same time Dr Robert Galluvay, uf the physics department, is carrying our measurements on sindamagnetic moterial from the department of help establish a dote for these livers using the isologic decay rates that he had heard water money.

luyers using the isotopic decoy rates of uranium/thorium. of uranium/fnormm.

The National Museum of Antiquities of Scotlend is engaged in other
dating techniques, and the results
of ad methods will be compared. So far, Mr Stavros Papomarinopoulos, a research student in the
geophysics department, has discovered that the Petratona Cova
material is more than 650,000 years spin resonance. Another partian

The cave was discovered to 190 when Christos Sariaunidis into Petralann was told by a shepker that he had heard water runial underground. Serioanidis temore a few lonse stones from the parand fell into the cave, where be funnd piles of animal bones and at carire dumon skelaton losslied.

Excuration did not begin and 1968, by which time the skeles was lost, but recently another act inn has been discovered embedde

do thet.

"We orgue thet ... non-reproductive transformations . . . dalimited lifeboat collection borthis site in its negativity . . . pre-making some donation.

## given categories has appaised, of course, for past given categories which are not the same at all).

Francis Bacon wrote that.

Angus on the brain

This devastating portrait of the moral torpor in which our judge-graduates oluuch their way past the librory and late the everlasting bonfire comes from instalment three

of his on-and-on-and-on-going nutoblography which is published in paperback this week (Fontanu

The book, Heather in My Ears— which eccentric affliction ho at no point explains—follows Salt in My Parridge and Racks in My Scotch

(after suffering from a unique form of emoebic dysentery for which his

Would ewe do it?

Bristol University's information officer was quite brazen album in. "We are going to hald a sheep grazing revenuony", he said, and repeated it lest he was not believed. In one of those inspired moments of duttiness which must take our legal profession hours to think my, the noiversity lins been told that it will be stripped of an incient right to graze sheep an Bristol's Durdham Down onless it is exercised forthwith.

with.
As communers of the downs—a charming expanse of parkland by the Clifton suspension bridge more normally used for the exercise of dogs and the right to free speech than for slicep fatteoing—the university has not unleoshed the slightest hint of mutton there since

However, the general purposes compilitee, ever sticklers for tradi-tion, hos recommended that the university council dumps o lomb or two os far away from the golfers and ice cream vembers as possible. "It will by a taken grazing really", said the information officer, Mr Don Carleton, by way of mitigation, "but there will be a valid academic by really?" A mouther of the beauty product". A member of the botany department will, it seems, bs using this heuron-sent opportunity to exouins what happens to a sheep's digeotion whom surrounded by peopla flying kites, or comsthing along Another br-product is that Bristol

has become a university where puns may safely graze: clearly preparing thamsalves for the arrival of the plasms lives for the arrival of the Doily Mirror at the grazing coremony, ocademics and students alike are nowadays full of onlys like:
"We may be woolly minded but universities wool O.K.?"

"There is a lot of it about," said Mr Carleton. "You know, jokes about sheepishness, thot sort of thing. It is a surprising runtificotion."

### All together now

"The sditorial collective (No, come back. This will be interesting) would like to see this new journal contributing to the olivance of political and theoretical stringgle in the areas of ideology and consciousness." Thus, appetizingly, begins the first issue of a mogazine of the same none (Ideology and Consciousness. Price El.10 including postage front 1 Woburn Mansions, Torrington Place, London WC1).

Por those who have never read snything written by e collective (we will exclude Shokespeoro for the moment over the membership of whom there appears to be some debate) I would like to quote o whole elab from thie "Marxist journal in the theory and practice of psychology, psychoanalysis, hinguistics, and semilotice in the lamily, the school, the media and other areas."

other areas."

Unfortunatoly this will not be possible without "epplication to the editorial collective". But this does not matter sluce to convey its essential flavour I need only quote every fourth word and you do not have to epply to enyone to do that

"Ladies and gentleman. Welcome to the Interval ity Club." A clean-looking young man with a beard had leapt to his feet with the sort of dibdill-dik embusiasm normally relayed to the followers of Lord Baden Powell. I do not think anyone will claim

The appointment of 42-year-old loin Gringer to the chair of accumulation at Dundee University completes an unusual family double. We wish beacher than its price product. The IVC (annual fee: £11) Is a social club with 10,000 pletes an imposing parameter by the property of business strategy in the Cina therefore business school. However, their routes could not have been more different. Peter ment in the country of the same age to overbeen more different. Peter ment in the country of the same age to overbeen more different. Peter ment in the country of the same age to overbeen more different. grammer school, hallist and LSE and, after a spell in management, followed a conventional academic career. John, by contrast, failed his 11-plus, left school at 15 and guined his GCEs while working as a clerk at the London Electricity Board, All his academic qualifications were nequired part time but he goined his professorship only three years after his brother.

lectual stimulus once they have stimulus once t lectual stimulus mace they have Started work, his impressive new London headquarters, refurbished

In the ssemingly never-ending outobiography of Scottish scripwriter
Angus MaeVicer we learn that Glasgow University elmost rulned him.

"For some young people", he writeo, "disillusionment occurs when they go to university. There they discover that nobody worriss about their moral or physical welfare, except in en abstruct kind of way. So they donce all night and sleep all day. They it ink coffee and ent closelate biscuits."

This devastating portrait of the

# (Were this not such a tasteful and cultured column. I would start o competition for the most likely predicament in which we might find Angus MacVicur for his incyliable fourth volume. I strongly favour

fourth volume. I strongly favour 100 Per Cent Paraqual in My Hor-licks.)

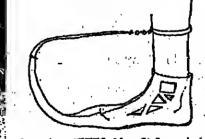
The Open University Operatic Society is to stage The Ballad of Walton Hall, a musical look of the talk interminably about pop ort and OU's history later this month. Now licks.)

Ile goes on: "(Some students)

It is goes on: "Name of the first year one of the student of the student of the first year they fall their exams. Grants and bursaries are taken nway from them. They are miserable and lottely and hote themselves. I know. In spite of iny advantages I went through it."

So basicelly, Heather in My Bors (subtitled "More Confessions of e Minister's Son") tells how Angus MocVicars leaves the security of e childhood manse for university, is tempted by tha demon chocolats digeotive, feces ruin, but goes on (after suffering from a unique form of the first year and the suffering from a unique form of the first year of

own name is apparently synonymous locally: viz---"o touch of the Angus MocVlcars") to write e Scottlah fomlly television series celled Thu Glens and leod on upright life, nevar passing o royal lifeboat collection box without making some donation.



Last time (THES, May 6) I carried o picture of a thirteenth century poulaina upside down to check if onyone raods this column or not. This week I carry a correction (obove) and can revaal that I do have a revaal that I do have o reader. She is Mrs M. L. Ninn of Chesham who is claority something of a wit because nil the relevant words of comploint in her letter were thenselves upside down. In future issues I hape to corry a photograph of Mrs Ninn.

A HIPCU LUAUITA SHOUK UULSIUC

Mora than 600 north-east teecher-training atudents have escapted an livitation from Newcastlo Poly-technic to conclder alternative carcers to teaching. They will attend a convention organized by that polytechnic next Friday when the local employers will edvise them on job opportunities.

The polytechnic Appointments and Cereers Advisory Sorvice has mounted the convention in response to the difficulties confronting to the difficulties confronting to the employers will view them as lightly suitable employees rather appointments officer, seld: "Wo hope to imprese upon the students folluros."

## On the other hand illusions



**Predictions** 

can be merely

If the ottendance et the opening algebraic club's members are, by and large, thoso graduates who three deelded that the stoius quo is where they want their villa built. Tariq Ali, for instance, is probably not a member. It is in the noture of human beings

to know what the future may bring so that we may prepars ourselves for it, both to take advantage of the apportunities it may offer, and to gnard ourselves against ite blows. When we speek of forecooting sud planning in the realm of higher sducation the wish to predict and control goes beyond our shared human distute for the unexpected. The political and sconomic motives for wanting to know the size and shape of higher education 10, 20, and even 30 years in the future are

for wanting to know the size and the forces of the club's history from ite 1947. The chibition upstairs showed the club's history from ite 1947 the want to know how mony ploople in some future year will want to enrol in college or university end we want to know whom the sconomy will be for the gradium of history which have interactive as well want to enrol in college or university end we want to know whom when the sconomy will be for the gradium the sconomy will be for the gradium the economy will be for

orderly way; we wint to have enough space for classronnis, libraries and invatories, but we do not want space going to waste, or listitutions closing down, or ocademic personnel under-used or unent-played. We want to know our future rate of growth since that an heavily

effects our current policies.
For postgraduate education—thet is, the preparation of the next generation of college and university teachers—the motives for institutions and for governments to predict the future and to act as if both predictions will come true are very

any home experiment has to be amingful. Our OU student hesn't to well-equipped laboretory, he is to rely ou his bathroom or killien (holds up milk bottle)".

Nor will its last chorus do anything to detein us front the early bue:

"May the paths of distence leorning Advancs all humonly Every lond shall proudly claim its Open Univarity".

Still, it will be worth going to see all if while Parry, the OU's vice-all it will be ween the Robbins report and the chencalfor in his pyjamas. He plays the role of himsalf end is seen in bed sifting job opplications.

The THES published a fascineting as made by various official bodies between the Robbins report and the stewer reference in the difficulties of forecasts. The Association is not meant to some a debsting point. For if we cannot predict well very far shead to call "plenning" for higher education. And how does that offect what we ore pleased to call "plenning" for higher education. And how does that offect what we ore pleased to call "plenning" for higher education. And how does made by various official bodies between the Robbins report and the institutions and the system of higher education?

The THES published a fascineting in the changing predictions of enrolments are made by various official bodies between the Robbins report and the system of higher education?

The THES published a fascineting in predictions of enrolments are made by various official bodies between the Robbins report and the system of higher education?

The answers to that question of higher education of "planning" in higher education of "planning" in higher education of "planning" in higher education of planning and the system of higher education of "planning" in higher education of planning and the system of higher education of "planning" in higher education of planning and the system of higher education of pl

1979 of some 10.6 million students.
In 1974, just four yeare later, the ara, in fact, not forecasts at all, same federal egency was predicting but illusions.

8.6 million students for the same year-a reduction of 2 million within four years. Both predictions ore likely to be wrong. Enrolment in the Fall of 1976 was 11,2 million.

But predictions can be wrong with in very short times. The Office of Education's National Center for Educational Statistics (NCES) as recently as September, 1976, had projected the Fall enralment for this year of 11.7 million. The actual enrolatent was half a million less, Apparently the statisticians did not mittipate the effect of the expiration of educational baractic expiration of educational baractic expirations. tion of educational benefits for over three million Vietnam veterans, and this resulted in a decline of nearly doubtn's resulted in a decline of nearly doubtn's sudents enrolled on GI Bill to about 708,800 in 1976. We may not be able to predict very well or very for into the future, but we are much hence at explaining why our predictions were not very good. predictions were not very good.

They are not very good hecausa there are 100 many forces involved about which we have hittle knowledge and less control. We know the numbers in the traditional college—university age cohorts for the most stars are a fine most of noxt two decades, since most of them have been born and it is that demographic foet on which most of our ourolinear projections are

based.

But those figures ore less and less ralevant, as increasing proportions of students in higher education come from older age groups. Not can we predict that demand for "continuing education "from older students may grow. That itself is of function of government and university policy, of the stats of the economy over the next decadea, of microployment levels, of chonges of the occupoilonal structure orising the occuporlend structure orising from technological change, and of such cultured changes as the broad movement for the equality of

The forces that affect enrolment —economic, political, technological, tultural and demographic—are not thenselved single forces, each sim-

iloctors or teochers needed over the past few decades. the past fow decades.

"Yes, that Is true", said the minister, "but (nounding e fist on a polm) next time we must get our figures right." In the face of such consistent and tvidespread faithre to "get our figures right", this grim determination to do so "next time "is vary nearly an operational dofinition of fanaticism. I mysolf asked the minister how low he could have predicted conditions in Britoin in 1976 if the had been minister in 1966 or 1956. He just smiled and went on to the next question.

But my question is not meant to

## Trainee teachers look outside

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## Bath examines computer's use

A Bath University team is to work of computerized catalogues.

exomine how a national computer Bath library has already dutic record of library books and periodical work with the university's computer and on the use of computer and public libraries. It library estaloguing. Its superior and public libraries.

#### Multinationals studied at UEA

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THOMSON SMALL & FRIENDLY

Anglia, is shortly to start a three year project in the economic history of central Europe. By means of a £25,000 grant from the Social Science Research Council it will trace the growth of multinotional companies in the area efter the First World War.

The object of study will be firms with their head offices in Britain. Frence or Germany which invested with their head offices in Britain. Frence or Germany which invested heavily in Austrie, Czechoslovakia and Hungery. Immediately after the first World Wer, the government eclion cen ellect these prices.

ATOL 152BC,

The object of study will be firms with their head offices in Britain. Frence or Germany which invested heavily in Austrie, Czechoslovakia and Hungery. Immediately after the ments of these countries notively sought foreign investment as part of their plens to make these new states viable.

The object of study will be firms with their head offices in Britain. Frence or Germany which invested heavily in Austrie, Czechoslovakia and Hungery. Immediately after the ments of these countries notively sought foreign investment as part of their plens to make these new states viable.

## Exeter physicist aims to help

With an £88,000 grant from the British Library, the tean, under the direction of Mr John Lamble, the university librarien, will look at the central computer service being set up by the British Library and set what usee can be made of it. The teem also hopes to do further the setting up of a world-wide net wayword index system.

Butters in Horary cataloguing. Its own library is aireedy fully computers that the cataloguing is the saving on colories: 50 per cent of the normal formulation of the normal formulation of the normal set which are not used to the nose which are no setting up of a world-wide net work on finding books through a the setting up of a world-wide net wayword index system.

progress. The research will study the ut fulness of an instrument called it nasal anemometer which measure the escape of air from the solt information is vital in the sum in manager of the sold in manager of the sold in manager of the sold in the



A geriatric Braduote: one of the many photographs in e new book, Interviews with Master American Photographers (Peddington Press, \$5.95) by James Danziger end Barnaby Conrad III.

Clinical level

will medical schools continue to be able to

Indeed the Committee of Vice-Chancellors

Indeed the Committee at vice-chancelors and Principals warned recently: "If the terms and conditions of sorvice in the NHS conditue to be more favourable than fur clinical academic staff, there is a serious threat in the long term to the very existence of medical education in the universities".

Preclinical departments, which tench the scientific basis of the medical curriculum, have been virtually unable to recruit medically qualified staff for several years. Their plight is discussed separately below.

On the clinical side, the nharm was raised

on the clinical side, the marm was raised a year ago when a new contract for junior hospital doctors introduced overtime payments according to the number of "units of medical time" (UM Ial workad. This created a difference in arming patential between rlinical lecturers and their NHS counterparts

(mostly senior registrars and registrars) where there had been broad comparability of salarirs.

The universities were particularly unset

The clinical lecturer is prevented by his

the chaical lecturer is prevented by his building and research commitments from building up as big a UMT tolly es the NHS excer, but he may be aerning more than professors outside the medical school, and he vision is beginning to look like an important universities, fuelling the jaslousy streamy fet, by some non-clinical ecademics.

Opposents of UMTs—who seem to include they medical professor in Britain—point out they could further distinct the uneven medicine. But they could further distinct the uneven medicine.

medicine. For specialities with a high pro-portion of emergency cases, which tend to be the oversubscribed glemour erees of medicine and surgery, ellaw doctors to accumulate in the predictoble workload—generally the subject of the predictoble workload—generally the public specialities auch as radiology and

## MOTICE BOARD

Mr Amariya Kumar Sen, professor of economics, London School of Econ-omics, has been appointed to a chair of economics at Oxford University

Mr Ray Harris, professor of Romance Languages, University of Ux-ford, has been appointed to a chair of general linguistics at Oxford Univer-

3ir Martin F. Smith, reader in the department of classics, University Collega, Bangor, has been granted a personal chair.

Surrey
Electronic and Electrical Engineering—
Professor W. F. Lovering, £8,545 from the SRC, for work on systems organization. Mr W. Mattey, Professor V. S. Griffiths and Dr J. C. Pade, £22,590 from the Ministry of Defance, for work on mechanical protection of electronic equipment; Mr W. Mailey, Dr R. E. H. Bywater and Dr S. E. Williamson, £4,800 from the Ministry of Defenca, for work on the design, etc., of nonsacursive digital filter; Mr W. Mailey £7,823 from the Ministry of Defence, for work on Channel availability broadcast equipment; £5,828 from the Ministry of Defence,

Birmingitem Resders: Dr T. S. M. Miclean (elec-iromognetism); Dr E. T. Stringer (Elinatology); Dr J. W. Carter (chemi-cal engineering); Dr J. P. Sinonis (Pâtolochemistry); Dr M. P. Osbarna (irenroblology); Dr H. J. Wilson iden-tal materials); Dr N. Crawford (bio-chejolstry).

Newcastle

department of classics. University Collega, Banger, has been grunted a personal clear.

Dr Peter Foulkss, reader in German at Stirling University, has been appointed professor of German and thead of the department of German at University College, Cardiff, Dr Foulkes will succeed Professor T. P. Williams who will retire in September, 1977.

Mr Prancis Louis Mastaglia has leen appointed to the cliair of experimental neurology at Newcastle University.

Newcastle Proactions to senior lecturer: Dr work), Principal lecturers: A. D. G. Beynon (oral physiology); Dr P. K. Datta (manarials professor of German and University College, Cardiff, Dr Foulkes will succeed Professor T. P. Williams who will retire in September, 1977.

Mr Prancis Louis Mastaglia has leen appointed to the chair of experimental neurology at Newcastle University.

Mr Prancis Louis Mastaglia has leen appointed to the chair of experimental neurology at Newcastle University.

ielemetry link for star; Dr K. G. Stephiciis, £1,857 from the SRC, for work on lateral spread of lons; Mr Q. V. Davis, £3,250 from the Ministry of Defence, for further work on fog particle size distribution analyser. Mechanical Engineering — Professor I. M. Allison, £13,282 from the Ministry of Defence, for work on stress unalysis of Defence, for work on stress unalysis of efflux deflector. Physics—Dr S. J. Herris, £4,112 from the SRC, for work on North Sea palicy study, with special reference the SRC, for work on thin apacimena of semi-conductors; Professor D. F. Jackson, £3,600 from the SRC, for work on in conjunction with the Culogue Insiltate of Energy Economics. istry of Defence, for further work on fog particle size distribution analyser. Mechanical Engineering — Professor I. M. Allison, £13,282 from the Ministry of Defence, for work on stress unalysis of effux deflector.

Physics—Dr S. J. Herris, £4,112 from the SRC, for work on thin apaclinesia of semi-conductors; Professor D. F. Jackson, £3,600 from the SRC, for mork on spin-orbit effects to knock-out reactions.

mai reactions.

Biochemistry—Dr G. M. Cohen, £5,303 from the Caucer Research Campaign, for work on uptake, binding and metabolism of Beazo (al pyrene; Professor V. Marks, £13,497 from the Caucar Research Campaign, for work on cyto-

## Oxford Reader: E. I., Jones (English Mera-ture). UWIST

Promotion to render: Dr Alexander Brown (mechanical engineering and engineering production).

Polytechnics Northern Ireland licads of schools; Dr Maxwell Taylor (psychologyl; M. Molyneux Hanguage and literature).

Newcasile upon Tyne
Heads of Departments: Dr R. D. Glisson (insilientatics, statistics and computing); Mr Peter Hubsch (modern sugnages); Mr Alan Nisbatt (social work). Principal lecturers: Dr Gerald Reyaolds (surveying and construction); Dr P. K. Datta (materials science); Mr D. C. Jonas (health studies); Mr D. C. Jonas (health studies); Mr D. Cassells (economics); Mr David Siewart-David (administrative and management studies); Dr Michael Rudden (faculty of science and technology), Lecturers: Mr Sieve Byers and Mr Rajeen Loonba jlawi; Mr Clifford Hardessde and Mr David Stufford (surveying and construction). Newcastle upon Tyne

Tador Oxford and the Enropean Renalssance", the James Ford special lecture in English history, will be delivered by Predessur J. K. McMonica, professor of history at the Pontifical institute of Medleval Studies in Turanto on May 24 in the Kyaniganton Schools on May 24 In the Examination Schools, University of Oxford.

"Education in Ageing and Geriaric Medicine", a Joint merting organic by the Association for the State of Medical Education and the British Geriarics Society will be lived on the State of the Education and the British at the Elimington Medical Ind. Inte. Further details from ASME, Ed. Perth Road, Dundee DD1 4EA.

In Birmingham. Full details and registration forms from the Wolfson Heat Treatment Centre, the University of Aston, Birmingham B4 7ET.

"Information, Public Policy and Political Action", an ASLIB Suchi Sciences

"Information, an ASLIB Suchi Sciences and Political Action", an ASLIB Suchi Sciences

information Group conference, will be held from May 27-28 at the Polykehold of North London, School of the parlaments, 207-225 Freez Road, London NI 3PN. The conference will doing together librarians, information we kers, publical selemates and political activities to explore the relationship helivern information transfer, public publicy and polalical action. Further details from J. A. Hennessy, the Polytechnic of North London.

"Calastrophe theory in the physical sciences", a symposium organized by the Institute of Mathematics and its Applications, will be hold at University College London on Muy 27. Speakers inclinde Professor E. C. Zeeman of the University of Werwick on "Some pidiosuphical espects of catastrophe theory". Farther details from the Institute of Mathematics, and its Applications, Talitand House, Warrior Square, Southend-on-Sea, Essex SSI 2JY.

The National Book League will is including a Jean Cocteau exhibition from May 27 to June 24 at Albemarie Steet London, W1. It will include drawing paintings, lichographs, ceramics, manders, sculpiumes, illustrated bois decements, which will evoke it diverse talents of Jean Cocteau.

Blood 'n' kisses, a rock musical by Rod Anderson and Steva Volk, will be held in the Vandyck Theatre of the University of Bristol ou May 25-26 at 10 pm. The new multi-medio show dealing with laboo subjects like drug addiction, incest and rape, will be perforated by sudents of the department of drama—radio, film and television section—the Bristol Did Vic Theatro School, and Bristol Polytechnic. Further details from Dlana Porter, telephone 0272 24161, extension 671. "The Construction, Commission and Operation of Advanced Car-Code Reactors", a two-day conference of the held on May 25 and 27 at the to intion of Mechanical Engineers, 115 cage Walk, Lordon SY111 91, h conference has been called to rethe experience gained during a construction, commissioning and at inperation of five 1200 MW Is Advanced Gas-Cooled Reactor Pay Stations, Further details from the construction of the construct "Developments in heat treatment fur-nace moterials", the Wolfson Heat Treatment Centro seminar, will be held on May 25 at the University of Aston in Birmingham. Full details and regis-tration forms from the Wolfson Heat Treatment Centre, the University of Aston, Birmingham B4 7ET. Mayanced Gon-Correct Accepts from he Statismis. Further details from he William Cromer, the Institutes of Mechanical Engineers.

## Open University programmes May 21 to May 27

Saturday May 21

7.40 Brana: Woyrock (ANOT: prof 5); and a lin introduction to Materials: Making Alkroscope (1827); prof 5; Topics in Pure Mathematics: Topics in Pure Mathematics: Topics in Pure Mathematics: Topics in Pure Mathematics: Mochanics and Applied Colorsus: Mochanics and Applied Colorsus: gladds in Mechanics (1857282); prof

10.30 prog 7).
Technology for Teachers; Control;
Photomotic Circula [PET27]; prog

Disjorted Rate and the Sected Sciences: The Patterning of the Volo (1930); prog 4).
Linear Methoractes: Quadratic Forms (M201) prog 14).
Public Administration; Policy for the Uniter Press Alphanative Approaches to Child Care (1931; prog 2).

9.08 Drame: liters in Dramatic Conlike!
(A307; prog 10).

8.25 Scitoding and Society: The Lase in William Tyndale, Parl 1 ILLuck!

8.45 Dramatica Foundation Course; Bancardes and Limits (2) (M100: prog 14: M100: prog 10: M100: M100 prog 10). Science Foundation Course: The Dawn of Call Biology (Supplementary MaisMai) (\$100: prog 14)!

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Wolsey Hall oxidin

10.00 Personality and Learning An Analomy of Reading Celli: prog 10.20 The Nincicenth-cornury Novol and its Legacy: The Other Side of the Operation Centery Novol (A.5.02; prog 1).

10.40 The Nincicenth-cornury Novol and its Legacy: The Other Side of the Constitute Novol (A.5.02; prog 1).

10.40 The Nincicenth-cornury Novol and its Legacy: The Other Side of the Constitute Novol (A.5.02; prog 1).

10.40 The Nincicenth-cornury Novol and its Legacy: The Other Side of Instruments and Instruments of Instruments and Instruments of I

RAOIO 3 (VHF) 17.40 Replacement Programmes for North Scalend 18.10

24.00 The Hins-toenth-century Novol and its Lousey; The Other Side of the Question; Women in the Minetoenth-century Novol and its Lousey; The Obloment of Instruments end their Minetoenth Cart Cart of the Cart o

10.00 • Personality and Learning: An 24.00 • The Age of Revolutions : Wardsworth in the West Country (A202 : prog

17.20 Blatfairs An Injerdistiplinary Approach Toko a Bampio i MOI241 : 17.40 Majorials under Stress : Gure Off-shore ii 17.51 : pring 7.

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18.25 Mass Commingering and Society:
The Confidence in Description of Confidence in Description Confidence in Description Confidence in Description Confidence in Confiden

ment programmes for sorth Scotland | Type | Letter | Let

Wednesday May 25

Tientenisty Mathematics for Science and Periods on Propositions for Silver and Polymology 1 Hucking (MS1201) (CD.29) Personality and Learning Kets and Hucking (MS1201) (CD.29) Personality and Learning Kets and Hucking (Lake Tither People 119201; 1999 41. Silver MS1201; 1999 51. Silver MS1201;

prog 71.

17.40 Meterials under Stress: Sure Offshore | 11 | 1735| | proug 14|.

18.10 Methametra Foundation Course: Enturning e Sins (MIUO; prog 14|.

18.35 Technology Foundation Course: Entyronmont (1) (TIOU; prog 26).

RADIO 3 | VHF

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a.o. Presentilly and Learning: Kale ond
instance of the sure of the sur 17.80 The Mineleonth-Century Novol and the Corner is A view of Middlemarch (ASO2 i prog 7).

17.40 \* Inchois of Educational Enquiry : An Empirical Approach : Holladility and Edvar (E344 : prog 3).

18.10 \* Ecople and Work : Discuile 12 j.

10.50 \* Aria Foundation Course : Lede and the Swan (A100 : prog 15).

RACIO R (VHP) O.85 O.20 Property of the prop

SABIO 4 tVHF)

O.10 Microsconomics | Economics of Scale | (SMO) proc 41 | (SMO

5.90 Chiriculum Desion and Occionest The Whole Chiriculum: Okcuso (1205) prop 111. 5.21 (than Development: Illerisales for granutes (177201; prop 12). 6.20 (than Development Blacksfore pranting 197201; prog 18.
6.40 Technology for Trackers Applyed Lokindoy 19720171; prog 6.
17.45 The Nature of Chemistry, Parl Applyed in Additions of the Special Charles prog 11.
18.05 The Matter Matterials of State of Trackers (that Trackers of the Special Charles of Calculus (18.5785); 79

Friday May 27

1.40 The Development of Instruments and their Music: A Symptony is Record (A.343; phog 71.

7.08 The Age of Revolutions: Worderer (Auditory 71.

7.10 Age of Revolutions: Worderer (Auditory 71. 7.30 Larth Science Topics and Helicity Blyo. Use Tield Endegree 1833; prug 412

6.40 Fundamentals of Human Hospital States of Hydra Par States of Hydra Par T. 1.05 Furriculum Design and Ostologist States of Hydra Par T. 1.05 Furriculum Design and Ostologist States of Hamilton Hami

NHS pay attractions threaten medical schools The unexpected and possibly serious consequences for medical schools of the new overtime system won by hospital doctors last year are among aspects of pay and conditions that Clive Will medical schools continue in be able to altrect chappy good teachers and researchers now that doctors can again much more working for the licalth service? This question and its implications for academic standards are becoming a major worry for medical education. Cookson looks at in the second of his series on medical education



versities will have to uegoliate something similar, as with the juniors.

These "difficult discussions" involved representatives from the CVCP, DHSS, University Grants Committee, Department of Education and Science, Association of University Teschers and British Medical Association, among others. Their problem was how to psy junior academic staff for UMTs or something like them, so us to asfeguard universities' recruiting prospects and reteining existing slaff, without imousing too heavy e finoncial burden on medical schools or schools y violating the sacred university either that the aradomic working week is not measured and teachers and researchers The same sort of objections would apply, with more force; clinical academics would inve a linauchal incentive to dovute the to hospital service rather than teaching or research; other academics might domaind similar overtime payments; NIS consultants could become less willing to help hair medical students. not measured and teachers and resemchers

The result of the negotiations was a mesay and confusing agreement, contaioing "a horrible gap in the logic" as one participant put it. From October, 1976, universities were to pay clinical lecturora for UMTs calculated from the time devailed to patient care, without quantifying the number of hours spent so research and teaching. Precise arrangements were to be worked nut locally, and some-medical schoele era still applying crule continue. Most people in medical schools feel that the lock of DHSS concultation over puy and conditions is an example of the more general way in which NIS administrators ignore educational interests. The breskdown in communications is frequently ottributed to the 1974 rearganization, which divided the health service into three tiers (regions, areas and districts) with the DHSS on top.

In a typical clinical department the chairman works out with each lecturer his UMT entileacent for the year, according to the fauthor of hours spent on duty or on call at the teaching hospital. If one or two peoples the rest thair posts may be considered the rest thair posts may be considered their total number of UMTs and divide them to the post of the stoff. Departments claims are then yetted by a central modical theal thealth authority, to ensure that they are roughly in line with NHS payments. Until 1974 universities were in close touch Until 1974 universities were in close touch with the Department through their teaching hospitale boards of governors. These were scrapped, loaving the English provincial medical schools without a direct link to the DHSS (though the 12 London schools can still communicate directly vie the London Coordinating Committee, and special scrangements exist for the four Scottish schools, the Weish National School and Queen's University, Belfust).

At the regional level, university coordi-At the regional level, university coordinating committees do exat, and a recent DHSS circular told health authorities to make more use of them; they are to be consulted as an integral part of the proress of allocating funds to teaching hospitale. This may help to make outhority members more aware of the needs of medical research and training it is often said that they are too preoccupied with improving local services to padouts, at the expense of their call education.

But there remembers a feeding that a rational

But there remsins a feeling that a national coordinating committee is needed. For oxample Dr Robert Lowe, dean of St Germe's Hospital Medical School, has suggested a small hody with top-level representation from the DHSS, CVCP, UGC and possibly DES.

Not everyone likes the idea however. Some members of provincial teaching hospitels an appear the proposed committee might just be a vehicle for their herd-pressed colleagues in London to oppose the rodistribution of NHS resources to poorer provincial

bore predictable workload hariss predictable auch as radiology and biddings profiles auch as radiology and biddings profiles auch as radiology and biddings are strong the UCC, put it: "I feel great envioty and implies the notable trond towards labeling the content of the doctor's working week. It is leighly allon to the university trodition. The Breat foar now is that the seme sort of oretime principal may be included in the loss working week.

The DHSS maintaine that its policy-making advent dops were actional interests. "There's no lack of in were cartional interests." There's no lack of in were cartional interests. "There's no lack of in were cartional interests." There's no lack of in were cartional interests. "There's no lack of in were cartional interests." There's The great foar now is that the seme sort of overtime principal may be included in the seme sort of the great foar now is that the seme sort of overtime principal may be included in the seme consultant controct which is currently with the properties of the controct which is currently with the securers (oil of whom lind honorary control that at NHS consultants; if the latter secure a changed form of contract, the uni-

"It is ineviteble that not everything the Department does will please medicul schools, because ultimately the responsibility of the secretary of state is to the boalth service rather than to oducation."

Preclinical

The virtual impossibility of recruiding qualified staff to pre-clinical departments was described as a crisis os long aga as 1971.

"The pre-clinical scene is cruntibing" a physiology profosour said in 1974. It has continued to crumble away since then, and tho loss of medically qualified teachers may hove gone so for that most pre-clinical departments (or basic modical science departments, to give them their more prodern unmal hove suffered a fundamental and irreversible ohunge of character. Not overyone would eccept, however, that this is necessarily a disaster.

tenching carries o large financial penalty. The doctor in a clioical department will hold an honorary NHS contract and will be paid at a rate compared to his collengues employed directly by the health service—thrugh, as explained above, on purely financial grounds he might be better off outside academic medicine.

medicine.

It a basic medical science department he is very unlikely to hove an honorary NHS post, and the medical school will have to pay the on the same much-bower scale as his non-medically qualified colleagues throughout the university. Surveys have chown that his total earnings are actually bkely to be lower than the average science, social studies or humanities teacher, because there is more opportunity in these fields to supplement academic salaries from extra-university sources.

Under the UMT average a senting prefetting

Under the BMT system a senter register.

may est 1:12,500 per entum, twice as misches
as a consemporary resulting in a prefixed a
department. And the "distinction owards"
for consultants and honorary consultants
boost the pay of some clinical professors
above £20,000.

"It's small wonder that the newly qualified dector turns so the NHS or clinical departments—which now heve first cless scientific facilities—for hie career instead of accepting the modest alpends paid in pre-chinical departments," says Professor Peter Quillam, professor of pharmacolngy at St Boribolomey's Hospital Medical College and chadrings of the BMA Full Time Medical Teachers and Research Workers Committee.

"In the 1940s and 50s the only sciontifically advenced equipment was in pre-clinical dopartments. Clinical scadernic departments were few in number and often poerly equipped, and young postgradume doctors cause to pre-clinical dopartments to gain their scientific exportise and research experience". To the 1970s, on the contrary, clinical departments are generolly better equipped and have more prestige, and research funds are relotively plentiful, due partly to the provision of "soft money" by drug firms.

Up-to-date figures about ataffing in pro-clinical dopartments ero not available. The

last completed survey was carried out by the Committee of Vica-Chancellors and Principals five years ogn and showed a fall in the percentage of medically qualified applicants for vacant pre-clinical posts from 41 in 1967-68 to 31 in 1970-71. The percentages of medically qualified staff employed in 1970 were (1967 figures in brackets): anatomy 71.6 (78.31, physiology 47.5 157.9), pharmaculogy 36.9 (41.71, kiochemistry 5.3 (7.3).

The CVCP is currently conducting unother The CVCP is currently conducting unother survey, and everyone expects it in show a spectacular further full in medically qualified numbers. It has become almost impossible to find a young doctor considering a caraer in the basic medical sciences, and the percantages of medically qualified staff that chairmen of pre-clinical departments helieved desirable three years ago—ananomy 80, physiology 60, pharmacology 50, hiochemistry 25—seem quite out of reach.

But the measure, physiology and biochemistry need to be taught by dectors? Professor Quilliam and most of his colleagues argue passionately that they do, both for educational reasons—"only madical doctors can illustrate the rael relevance of the core eubjects to the clinical field "—and because practical exorcless, with drugs for instance, using students as subjecte, must be medically supervised. "Pulmonny ventilation tests, for example, must be rarried out on humane to be meaningful. The anatomy being studied is human and not that of lower forms."

Others, including some desms as well as

Others, including some desins as wall as non-meilleal scientists, are prepared to lot the meilleal contingent disappear front preclinical departments. The basic medical sciences would be raught by non-medics, with the help of doctors brought in from the clinical departments. cai departmanas.

It can be argued that the idea of a "pre-clinical dapertment" is already old-fashloned and will soon be obsolcte, with the continu-ing trend towards integrated medical cur-cicule in which the distinction between pre-clinical and clinical studies is blurred or non-existent.

In the long run this is probably correct, but it is notable that at present all three oew medical schools (Nottingham, Southampton and Lelcestar) regard the difficulty of recruiting medically qualified staff to tooch basic medical sciences as a sorious problem, despite their modern courses (and modern laboratories to altract researchers). The trouble is that their clinicians are too few and too busy to play a mejor part in preclinical teaching, and the present financial restraints do not allow universities to recruit more clinical staff.

What is to be done then? The solution favourad by Profassor Quilliam and his committee is to mave all medically qualified precipical staff outo clinical pay scales. This chuld be done by creating departments of medical enutony, modical pharmacology and medical physiology in the chinical medical schools.

The iden has so far bean rejected by the UGC, partly because of the financial implications of giving more then a thousand preclinical teachers a hefty pay use, and partly because "salary differentiation of that degree botwoen medically and non-medically qualified staff in the same departments, doing closely elmilar work and living the same sort of acedenic life, is undesirable".

of acedemic kito, is undesirable."

Professor Pater Fentent; professor of physiology at Nottiogham, agrees that it would be unjust to pay someone more simply because he held a medical degree, if he had no chilical commisments. He suggests that two clinical sessions a week should be arranged for basic medical science teachers within their own field of interest (after shitle retraining if necessary). Clinical salaries would then be justified.

He contrasts this with damaging "ed hoc" solutions that have been proposed—basic medical science teachers should undertake general practice, work as police currents, and other routine olinical duties in fields quite unrolated to their reaching or research interest.

interest.

Professor, Pentem believes his idea could save the day in some departments shough it would be too late for many that have been fundamentally changed by too great a loss of medically quelified ateff. He emphasizes the value to medical distriction of the company of the contraction. value to medical education of departmen with a mixture of scientists pure research and medics looking at the applied side. Medical science is bound to suffer if all the medics end up in clinical departments, with the non-medically qualified science enclose herded together in basic medical sciences encloses.

science enclaves. There ere signs that the chorage of modically quelified academics is beginning to opread from the traditional pre-clinical subjects to the "para-cibidal" ereas of microbiology, pathology end rediology. "It's a textible thing to say, but I'm quite glad chout that", substited on a pre-clinical professor; "it might force the universities to think more seriously about solving our problems".

more seriously about solving our problems.

In fact the universides may be on the way to solving the problem, though not in the way he had is upind. If they are maining too many doctors for the long term future (see last week's article) some of the surplus modiciare bound to turn to teaching and research in the basic medical sciences rather than fortunemployment of an uncertain future in at unemployment or an uncertain future in atoverstaffed NHS.



ened, which gues against the national trend. In the south-east institutes of higher education, essigned only a limited role elsewhere, will take the lion's shara of the placea.

Somo of the decisions about the region must have been clear cut.

No one, for instance, would seri-ously have ransidered rhosing Bul-niershe Callege, grandfather of diversification in liberal aris courses. In some places, however, colleges have theate to thank is:

their fate.

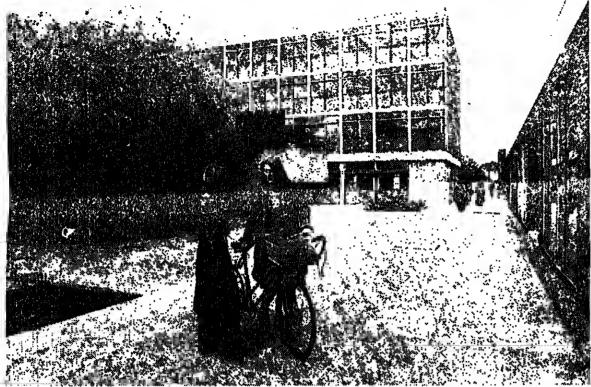
Portsmouth Polytechnic, which merged with the city's College of Education, felt secure with the tational pendulum swinging in layour of polytechnic departments. But both the Church of England and the Roman Cetholic Church have decided to keep their colleges in Hempshire, and Portsmouth is now fighting for six teacher education.

second largest local authority in the country, will have no maintained college of its own. The polytechnic says that it is one of the few southern inatitutions outside London which give students experience in urban schools. The faculty of education is strong in both mathematics and science since Portsmouth was a wing science collega.

The polytechnic employs demographic erguments to back up its case. In contrast with the overall decline, population in the southeast, and especially South Hampshire, is appeared to go up. Evon so, the Southeast, and especially south the southeast. tha Southampton area has been given fewer teachac training places

lon, the polytechnic's supportera suggest, if the faculty of education loses its initial training. The 1ste of Wight, whose schools and tea-chers have close links with the polytechnic, is particularly concerned about the proposel.

Finger of fate seems to have been partly directed by chance South-cost: Initial leacher like ing should eease: Huckinghamshire Unigher Education College



Portsmouth Polytechnic is now fighting to keep tencher education.

will be in competition with the polytechnic for students, mainly in the humanities oud social sciences.

The other colleges, however, have their strengths. King Alfred's hes pushed his course proposals through the Council for Nethamil Arademic Awards with an case which has aroused the envy of other colleges and so for its diversified courses heve printed nopular. It has just had a Dipille course validated and has a splendid site in Winchester.

Le Sainte Union, which a few years ago looked vulnerable, has developed an interesting arrangement with Southampton Collego of Technology covering a number of joint courses which take it into the maintained. joint courses which take it into the maintained system. There is a flourishing BA in modorn lunguages and Europent studies and La Sainto Union is the only Catholic collega to have a DipHE. It believes it owes its survival partly to the need to provide for Cathulic Teocher education in the south.

Patricia Santinelli at Loughborough University's Centre for Extension Studies

amping and the West Sussex Institute of Higher Education—could
survive.

Ite suid all must diversify and so going to be a strong competition for students in the aren, especially if the number of those gaining two A levels falls to increase consider-

Lecturers at the polytechnic are arguing for more places for the south-east but they are also easting their oyes at the institutions around them. Mr Ian Rolls, head of the Feculty of Educational Studies, esked in the polytechnic's newsletter whether the nearest institutions—King Alfred's Collège, Will have been between Bognor Regis and La Sainto physical cancation courses of the former Chelsea Collège should be to have a DipHE. It believes it owes its survival partly to the need to provide for Cathalic teacher education. This is men of the most extreordinary schemes on the cation in the south.

The West Sussex Institute of letter whether the nearest institutions—King Alfred's Collège, Will have be a maintained ending. In service transferred to Brighton Polytechnic, as way. This is men of the most extreordinary schemes on the cation in the south.

The West Sussex Institute of letter whether the nearest institutions—King Alfred's Collège, Will have be a the suspensable of the physical cancation courses of the former Chelsea Collège should be transferred to Brighton Polytechnic, as way. This is men of the most extreordinary schemes on the cation in the south.

The West Sussex Institute of letter whether the nearest institutions—King Alfred's Collège, Will have be a the physical cancation courses of the former Chelsea Collège should be transferred to Brighton Polytechnic, as way. This is men of the most extreordinary schemes on the cation in the south.

The West Sussex Institute of letter whether the nearest institutions around to provide for Cathalic teacher education courses of the former Chelsea Collège should be transferred to Brighton Polytechnic, as way. This is men of the most extreordinary schemes on the cation in the south.

The West Sussex Institute of the medical content of the most extreordinary schemes on the cation in the south.

Is sufficient no provide for Cathalic teacher education courses of the former Chelsea Collège should be transferred to Brighton Polytechnic, as way. This is men of the most e

A levels falls to increase considerably.

A levels falls to increase considerably.

Eost Sussex presents a different picture from that in Hampshire. It is proposed that the county's institute at higher education should close and that tencher training should be concentrated at Brighton Polytechole. Sinfl at the Education Polytechole. Sinfl at the Education, which officially opened just four months before its closure was the four months before its closure with the proposal must be that East Sussex in the best will be proposal must be that East Susse to that East Susses in the county was enclosed at the proposal must be that East Susse to that East Susses in the proposal must be that East Susse in the county was enclosed to remain the physical coluention facilities are completely bifter. The thinking behind the proposal must be that East Susse to that East Susses in the proposal must be the East Susses in the proposal must be that East Susses in the proposal must be the East Susses in the proposal must be that East Susses in the proposal must be tha

Proposals

Higher Education, Millon Keynes College, Culchester Institute of High and Fucther Education, Nonington College. Partsmouth Polylechnic. The Crawley outpost of the Wi Sussex Institute of Higher E

East Sussex College of tight Education, except for the povision at the former Chelses C lege for physical edicale, which should be continued Brighton Pulytechnic. Provision at Christ Church Conterbury, should cooling with a restuced provision of gr

If the Government proposaka carried out the number of place in the south-cost will be: bedived College of Higher Education Brighton Polytechnic (in

cluding Chelsen PE) . 18 Bulmershe College & Higher Education ... Chelmer Institute of Higher Education

Christ Chuceh, Canterbury Herifordshire College of Higher Education ... King Alfced's, Winchester a Saime Union .. Oxfocil Polytechnic

Westminster West Sussex Institute of Higher Education ...

whe polytechnic.

Notington College in Kent Is omezed et the lengths in which the DES is prepared to go to save Chelsen. Nonington Is also a physical calculation cullege and the college's surrival as part of the college of the college of the college's surrival as part of the college of the

3378-3581 3400-3582-3785 3786-3989 3990-4193 4194-4397 4398-4601 4602-4805 4806-5009 5010-5213 5418-5621 5622-5825 6030-6233 6234-6445 2200-

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No way up for the crowd at the top of the ladder

Peter Wilby looks at prospects for promotion in the third in our series on academic career

lu 1973-74, Birmingham University promated 34 peoplo to senior lecurer/reader level, within the University Grants Committee's 40 per cent quota for senior posts. Over the last two acedemic years Birmingham has promoted nubody al all within the quota.

THE TIMES HIGHER EDUCATION SUPPLEMENT 20:5.77

This Muse ares how the end of expansion, combined with financial cuts, has his promotion prospects in higher education. The ecadeoiles recraited during the great expansion period of the 1960s are now in their late 30s and at the top of the lecturer salary scalo. (Forty per cent of the university teeching profession is aged between 30 and

And over the past decade, the tripping age of particular as market lecturer/reader has been 39. Now, the age is creeping up and It has been calculated that, even assumlug a 2 per cent numual growth rate, it will rise to 43 by the mid-

of the Association of University Teachers, believes promotion will become an increasingly urgent issue over the next few years. The association's main concern new is

4200- Number of

obuil the procedures for promo-tion. In recent years, many univer-siries have introduced new rules allowing lecturers to put their awn names furward for promotion, instead of leaving nomination entirely to heads of departments. The AUT believes this system should be extended to all aniver-

But the question still remains of how e particular individual is Judgell to merit promotion. is Judged to merit promotion. The most comprehensive retion information comes to a
study of The Academic Labour
Market by Gareth Williams, Tessa
Blackstone and David Metcalf, published in 1974 and based on a 1970
survey. As expected, they found
that the cost reliable guide to an
ecademic being in either of the
senior grades (senior lecturer/
reader and professor) was age and
experience.

But what of other attributes? The possession of e first class tonuurs degree almost dubied the changes of becoming a professor, but had no officer on the changes. chances of becoming a professor, has had no effect on the chances of becoming a senior lecturer. Again, e PhD substantially increased the chances of n chart, but made little difference to the prospects aff a senior lectureship. An Oxhridge degree increased the chances of n professurship even mare than a PhD, but again, without much effect on the espiring senior lecturer. Almost exectly the same could be said of the London degree.

This suggests that teeching reputations made administrative contributions that play play o more significant part to promotion to senior lecturer than is sometimes thought. While professors are frequently impointed from outside n porticular invertible some could be said of the London degree.

is that the remiership rewords out-standing research and scholarship while the senior lectureship tekes

each ecaled from one point (very low effort) to five points (enthu-elestic). Administrative and other poiots (negligible duties) to three poiots (major contribution). A prime fecle case for premotion la astabished if a lecturer gets eight out of the maximum 13 points. Thus, satisfactory teaching, satisfactory teaching the satisfactory te tory research and considerable edministrative duties would constitute a case. So would eothusiastic research, low teaching effort and negligible administrative duties. Regardless of whet criteria e

university edopts, promotion chences for the individual must depend very largely on luck. In most universides, a vacancy at most universides, a vacancy at senior lecturer/reader level goes into e university pool. A department does not hove an automotic entitlement to replece a retire ment or realgnation.

In theory, the sole criterion is individual merit. In practice, much

and above

The association is also concerned.

Whether you wanted to be a professor in a senior fecturer, the worst thing you could be according to this carely was a woman.

The study is less helpful on the effects of performance within the profession. There was no data that onight have measured the effects of teaching or administrative nerforms. pullication of at least infections increased the chunces of a chair by 138 per cent. The chances of a scular lectureship were also increased—but by only 37 per cent.

Mobility was also important for professors. Working in more than two universities increased the chances of a chair by 165 per cent chances at a major letture. For early promotion to a senior lecture-ship, however, mobility was at a high premium. About e quarter of thuse who had worked lu three more universities were senior lecturers before 35, compared with three before 35, compared with three per cent of those who worked in unly one or two universities.

Thus, the man who becomes a senior lecturer early is rathor lika a professor, in fact, he is probably un his way to e chair. The man who becomes a senior lecturer into the thinks to his certainty of the senior tecture in the senior tecture in the senior tecture in the senior tecture.

tation and administrative contribu-tions may play o more significant part in promotion to senior lec-turer than is sometimes thought.

While professors are frequently appointed from outside a porticular university, senior lecturers and readers are almost elways appointed from within. The theory is that the readership rewords out-

only a small proportion of the senior posts in a university pool, Brunel has somewhet formalized its procedures by calculating the "promotion potential" in each department, based on age composition. The enlepiation essumes, for example, that half the lecturers in their early 40s should be in senior posts and 70 per cent of the lecturers who have passed the age of 50 should ba promoted. So, a department of 20, with holf the lecturers in thair early 40s and the other half over 50, would have a "potential" of 12 senior posts. This formula is used as a guide-line. But the suspicion persists that But the suspicion persists that the main measure of merit for promotion to senior lecturer is research and that it is a prelly croile measure of that. It is widely thought that 15 "quickles" interned journals ore o better passport to success than a single, well-considered piece of research. In the labour matket study, 41 per cent of the ecademics questioned agreed strongly that promotion depended too much on published work. University promotions are sim-plicity itself compored to the tan-gled and complex system that rules in polytechnics and further education colleges. Work le this sector le divided into four cotegories (see tablo). Since most colloges will have a mix of work from at least two, and probably three, cetegories, the formulae are used to enculatu o college's ovacall entitlement to

depended too much on published work.

In most universities, the published criteria for promotion to seniur lecturer remain vague. Southumpton, for oxemple, lists four points: ourstanding quolides as a teacher and twor; distinction in research and scholorship; outstanding qualities of a supervisor of students for higher degrees; contribution to the general life and work of the university and department.

Brunel University, on the other hond, is more precise. Of the three main ocademic activities—teaching, research and administration—Brunel axpects either outstanding performance in the other two or outstanding performance in the other two of and indifferent performance in the other.

A local education authority elso has the right to decide precisely how it calculates the omount of work dooc in a particuler category. Does it calculate according to the staff teaching hours? Or student thours? How does it calculate partitions work? The National Association of Teachers in Euclidean and research are each ecaled from one points (enthu-

department getting the whole insti-tution's sealor lecturer entitlement. that cartain departments may have two senior lecturors.)



depends on the head of department's burgeining power. If the French depertment, say, has had no promotions for several years, then French will probably get the vacant senior lectoreship if the head of department grumbles about the french when the serior is a french will be frenched. The procedures and crireria for promotions are just as vague and variable as to the universities. There is not even e general pattern as to whether posts are filled by fatternal or external cause the though the polytechnics are said to lean to internal promotion, while the FE colleges generally preferenternal compatition. it often enough. However, the University of East Anglia has a minimum establish-ment for each school of study, with only a small proportion of the

externel competition. The further education sector is unre blererchical than the univer-sity. Above the basic greding stys. Apove the basic greating system, there ere heads of deperiments, assistant illrectors and deans of laculiles. Together with the principal lecturers, these provide tha polytechnics with a proportion of senior posts that is at leest es good

Principal lecturers in polytechnics and senior lecturers and grade 2 lecturers in further education colleges are generally expected to take on extra administrative thities. In the further education college, for exemple, the grade 2 lecturer may be a course tutor or a safety officer or a supervisor of O and A level

The further education colleges are suffering the same peoblems of promotion blockaga as the universities. At the end of March last year, of the 24,517 teochers on tha lecture greile 1 seele in mainteined colleges, 11,435 ward on the top incremental point. But the Houghton Committee, when it reported two years age, prevented any significant bunching et the top of the scale in the polytechnics, it introduced communities transfer arrangements from lecturer grade 2 to sculer lecturer, so that grado 2 to sculor lecturer, so thue there is now, lo effect, e singlo scule with an efficiency bat.

The trouble is thet there is rarely a near dividing line heween polytechnics and further calucation coltechnics and further cilucation colleges. A further education college may well be doing the majority of its work in the bottom two ceregories, but still carries a substantial entout of diploma work above Ordivery National Cortificate lavel. So e senior locturer du the lower cotegories, whose promotion is a rere merk of distinction and whose duties may include those of educty heed of dopartment, may he working alongside e senior lecturer in a higher category whose promotion is slioply the cesult of automatic transfer from the basic scale.

tho problem so long as the Burn-hem Further Education scales cover such a wide range. On the ona hand, ments.

Within o college, there is such a wide range. On the our name notaling to prevent a particular there ere the polytechnics, who ere competing in the same lebour competing in the same lebour the universities. On the

other, there are the local further education colleges, concentraling of O end A-level work, who ere in the same merket as the schools. 20%-30% 70%-80% 10%-25% 75%-90%

## 10 years of forging ties with industry and services

Amid much hue and cry from hoth universities and industry about better cooperation, it is refreshing to find, that the Centre for Extension Studies at Longhborough University has for nearly 10 years been quietly and successfully establishing around the long around the second states and the public services.

Its main function has been to meet the changing training and educational needs of all sectors through a programme of short experience courses. "We are fulfilling e need which has been established as a result of continuous communication with inrun by university to the some for personnel treining run in some for personnel treining run in some for personnel treining run in cooperation with industry and cooperation with industry and cooperation with industry and other organizations.

In 1974-75 the centre ran 25, levelleding the summer programme, is excluding the summer programme, is covering 18 student weeks and take the control of the control of the control of the centre and provide chancellor said.

were set up and some now run during term time. These programmes not only include courses run by university depertments but some for personnel treining run in

also improve their image and go out to industry and other organizations the centre does and why it is auccessful", he said.

"This is what the centre does and this flexibility is an sances and this flexibility is an second flexibility is an sances and this flexibility is an escential feature of the centre's the many veers which what they really went to learn to improve their forces and economic conditions. The emphasia since 1975 he seem the university's aumment for sources, environment and correct forms and the university samment and the university samment for senter local services und teaching methods. There are cases, luw-ser where edvice and expertise to go an an insight in the there was a demand for apetic the senter of the correct set in guine of the correct set in the use and control of the there was a demand for apetic the expectate exceptions exceptions exceptions and the flexibility is an addition tutors for the correct set in the use and control of the sentence of the correct set in the use and control of the sentence of the extent set in the university and outside institutions. The entire of the extent set is an appeal of the expectation of the staff looks after a special area.

This is reflected in courses such as one for retaining methods. There are cases, luw-set is making the examination. It is important which is the staff looks

resources for the eerospace industry. Current technological topics such as filtration, air eod ooise pollution are edditionally deelt with in films which have been produced under the Leverhulme education project edministered by the course.

The needs of industry which the can relay bock to their students.

The besic requirement for each, but film and fulfil need, but film and fulfil need, but film account.

Recently fees heve been creased end demand is being contracted.

As yet come of the courses has led to eny qualification, but there is a possibility thet e series of releted courses auch es lodustrial resources, conservation ood environmentel pollution might be offared together to form a diplome.

The besic requirement for each course is thet it should fulfil e need, but financial considerations are taken into accounts.

Indeed there was a certain of jealuusy because of the state o

Recently fees heve been increased end demand is being corefuly monitored to check whether there is any resulting drop in attendance. The centre does not get a grent, but the university allocates a certain emount to short courses.

Slow, because of lack of the form of steff and time.

Tho summer progremme however, be expanded because the imminent merger with the imminent merger with the lace of Edward and the summer summer a certain emount to short courses.

cation, which too often was the last priority on their list. They should covering and general interest ones.

excluding the summer programme, covering 18 student weeks and take covering 18 student weeks and take covering 18 student weeks and take in a ground 575 students. This intake but a drop in etudent weeks and take interested an increase in student weeks and take interesting intake but a drop in etudent weeks and take offered courses and es lodustrial of conservation of courses, conservation of courses, conservation of courses, conservation of the university allocates a certain emount to short courses.

The main difference between the course in stocation might be offered together to form a diplome.

The establishment, organization of the centre is that the letter participeous coming alone and edministration of courses is been university. They should interest ones—

The establishment, organization of courses is incoming the summer programme, covering 18 student weeks and take conservation ode normal difference between the university allocates a certain emount to short courses.

The main difference between the university allocates a certain emount to short courses.

The main difference between the courses in student weeks and take in ground experience of the centre is that the letter participeous coming alone and edministration of courses is the centre is that the letter participeous coming alone and edministration of courses is the centre in social mends to the centre in social mends to the centre in social mends of the centre is that the letter participeous coming alone and edministration of courses is the centre in social mends of the centre is that the letter participeous coming alone and that the university allocates a certain emount to short courses.

The main difference between the university allocates accretion of the centre is a certain emount to short courses.

The main difference between the university allocates accretion of the centre is accretion of the centre is the university allocates.

The e

Category of Work Proportion of Posts Grado Principal lecturer Senior lecturer and lecturer grade II Above firat degree Aboya Ordinary National Principal lecturer Lecturer grade II Lecturer grade I Senior leoturer Lecturer grade II Lecturer grade I

## LETTERS TO THE EDITOR

## AUT and the London University Bill

Sir.—I should like to underline useful point about the University of Loadon Bill which your article (THES, April 29) may have in doubt. The purpose of the Bill is in achieve for the paircisity a freedom to alter its constitution comparable to that enjoyed by other comparable to that enjoyed by other chartered UK universities. It is this principle of exteoding the university's autonomy to which Mrs Williams, Secretacy of State for Education nod Science, "onaches great importance" in her report on the Bill;

"The University of London Bill in its present form will give the university greater flexibility and freedom in proposing amendments to statutes—It would no longer be restricted by the recommendations of the Hilton Volum Report!"

Young Report."

The University of London Act 1926 currently confines changes in statutes to what is in general accordance with the Hilton Young Report of 1926. The Bill now befors Perliament would replace these constraints by a series of procedural end other sofeguards, the chief of which is that every new stetute must be opproved by a two-thirds majority of the governing boilies of the university's constituent collages. What it does not do is to older the present constitution in eoy cespect.

The Association of University renchers' (AUT) petition sought, among other things to effect major changes of principle in the university's constitution, notably that the proportion of elected teachers on the senote should be doubled from the senote should be doubled from the present 30.5 per cent to et least 60 per cent and thet specific outside bodies should have direct representation on the court in place of the present system of oppointment of lay members by the Crown and local authorities. Had these propositions been incorporated into the Bill, a new set of limitations would have been imposed on the freedom of the university to decide, after consultation with its colleges and teachers, how the federal university

should be governed.

No decision has been taken on the final form of statutes to be proposed if the Bill becomes law. Consultation is still taking place within the university end there will, no doubt, be further discussions with the AUT about their specific proposals on the draft stotutes under the procedure orrangements between the university and the AUT.

Moreover, the AUT has been proposed that two nominess of its London committees cen take nort in a which are at issue. don committee cen take nort in a review of constituencies for teacher elections to the new senate. This is a question which has closely concerned the AUT and specared in its

#### Academic pensions

Sir.—In his article on education service pensions (THES, April 22) Micheal Connock stated that "the problems for someone retiring on the Universities Superennuction Scheme are the same as for a public sector teacher." This not so so.

Whereas a public sector (poly-sechnic, further education) teocher can retire at 60, the ratirement aga for university teachars le 65. While for university teachers le 65. While retirement from a university before 65 may be permitted, this involves loss of benefit. Even though many FR teachers may retire after 60 they are able to provide for retirement on full pension (40/80) at 60 by "buying in" added years of these products. We feel that the solution to this problem the state of the service to the state of the service to the service by the serv

The other hand, the university teacher under the USS they buy in such added years as will give him 40 years are computed to run to age 65. That university teacher cannot provide for 40/80 pension at 60, ss can the public sector teacher. Even if the university teacher completes 40 years service at age 62 ha nust continue to teach until the age 65 to draw full panelon (though supersmutation contributions would cease for the last threa years).

A polytectinic lacturer now trans-

A polytechnic lacturer now transferring to a university is required to join USS, and thus loses tha entirlement to retire at 60 (on full pension if he so provides), and also, as result, tha benefits of indexation of pension from that aga so ably demonstrated by Mr Connock. BRIAN R. JONES, Research essistant RIAN R. JONES, Recearch essistant, York University.

aftered, then under its provisionsonnruved by the senate and colleges of the university-the AUT can still make representations to the Privy Council regarding specific statutes. LEONARD CINNA Public Relations Officer,

of our controllsed authority and tho lings in the Hoose of Lords in which the AUT in petition proceedings is endeavoucing to have reasoned amendments inserted in the London University Bill, you repurt that the university opposes the formal representation of the TUC and the Browness that this was felt to be inoppropriate for the government of on academic body, the more so siace "the collibre of the persons appointed was not within the constant of the university".

Sir—In your excellent report huge cost at course production.

Questions of bius and accountability ars not easy to handle in practice, but I should still like to know where my colleagues stand on these principles.

MICHAEL MACDONALD-ROSS, Textual Communication Research Group, Institute of Educational Technology, The Open University.

Sir,—We, a full-time university teacher and research worker—who also do part-time Open University.

since "the collibre of the persons appointed was not within the constrol of the university".

Whatever the operits of the distributed between ourselves and the funiversity of London on the omendation ments we have put forward, I regret so received that in this day and age is aniversity should publicly display such arrogance in putting forward the concept that only the University itself is fit to judge the calibre of the persons to govern it. One would not mind so truch if the lay mention bers of a governing body were elected by the university membership as a whole in e free ballot but, putting it in crude terms, what the university is in effect saying is that it should be governed by a self-perpetuating obgarchy which curts contirmy to what is thought desirable in ell important histitutions in the United Kingdom.

The university also objects to our proposed for consultation of the persons of t

The university also objects to our proposal for consultation before making statutes, as being unressonable and a limit placed on no other university. This runs contrary to what happens in universities with our enlightened upproach where the AUT is called in and consulted on stetutes even before they go to the Privy Coun-

an omicoble solution which are at issue. LAURIE SAPPER.

General Secretary, Association of University Teachers, 1, Pembridge Ruad, London W11 3HJ.

### Animais in research

Sir.—We read with considerable interest Horold Hillman's srticle (THES, April 22) on the use of enimals in research end teaching. Fund for the Replecement of Animels in Medicol Experiments (FRAME) would agree generally with the article, apart from the use of pets in experiments, but would like to comment further.

### Open University standards

In this situation it is well to the least of the sustain remember that port-time tutors or a chesis that standards are lover not involved in writing the courses (or equal are higher) on the students' essoys.

A mors serious criticism of Onen University courses is the amount of outdated course material which tutors find themselves constrained to teach. We are currently touch-ing courses produced in 1972 and

Sir,—Many excellent points were 1973, in which the debates and made in reply to my letter (THES, April 29). But I moticed that m in some cases to revitalized Marxist "Britain has two-tier phot stands: abole with the control of the stands." In the stands of the control of the stands of the stands

April 29), much main issues.

First, that the systematic bias, propaganda out the untission of illernative viewpoints is an objectionable practice. Second, Open University course teams bear an especial burden of integrity because of our controlled authority and the huge cost of course production.

Scholarsup.

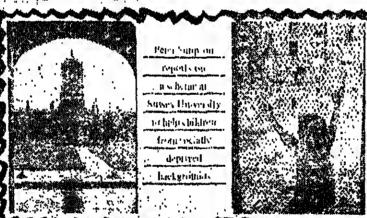
The way in which the course materials and studen assignments on the misleading. A case in point is the assignment on Bernstein in E262 "Language and Learning", in which the enormous unount of critical material on the code thesis and necompanying intervention language. nccompanying interventian language programmes which has been published in the past five years, is not made available to students.

Ws appreciate the constraints of time and maney which affect the Open University, and other universities. But, in our view, the question of bias through absolescence should be a major consideration in the investigation into courses which the Open University now proposee CHRISTINE M. HEWARD, SALLY TOMLINSON, University of Warryick.

Sir,-I would not wish your readers suppose that what you reported me as eaying at a recent conference of the Ulster Yeachers' Union 'in an impromptal reply to a question from the floor" (THES, April 22) necessarily represents my position on the acsdemic standards of the Open University, My view, briefly, is that there has not yet been time to test adequately these standards ngainst those of more conventional and long-established universities.

evidence at present to hand, and equally imposelble to argue seri-ously the general unalogy which you quote us affributed to me. Buth this university and myself wish the OU well; indeed we help and have olways helped the OU in every way we can, and will entiline to the so. PETER FROGGATT, Queen's University, Belfust.

Working for the deprived



Sir,—Peter Simpson end his collagues of Sussex University have devoted time and effort to increasing the numbers of deprived youngsters entering university (THES, April 29). They did not have to bother but they did end they bave my full support. I chellanga the approach they describe only in the hope that other schemes will be tried out and evaluated so that the tried out end evaluated so that the most effective onee can be widely developed.

upon interviewing lower sixth form pupils recommended by teachars and reducing university entrance

but may diffinetely run into various dishing of croubles.

In America the policy of reduced entrance requirements has been pureued for some years to increese the percentage of minority group students in the universities. But others has been at least one court case successfully contending racial discrimination—albeit "reverse" discrimination—albeit "reverse" of all cul- ile. For all cul-

in maths, ecience or engineering.

An alternotive scheme would be to my to epot earlier pupils of high developed.

The scheme he described relies upon interviewing lower sixth form pupils recommended by teachers them to be brought up to normal and reducing university entrance standards. Respectively. The selected pupils for selected pupils search I conducted among on the search of t

lecturer alleges. To take temel
—made in informal discussion g
signs fieldowing a paper—and tog
them headline space gives the
marks malue emphasis, distorte reallty and focuses the real attention on the wrong isoes.
Furthermore, the article impliquite wrongly, that this commtwins formuled on evidence colleduring my survey of the tatepre-session English Isngaage conin Hritain and was central to
discussion of the SELMO.
Sentiture. semmur.

Infility to manipolate completerms of language obvious the academic progress and the language of many oversens student it they arrive at university is yes deficient. Academic staff may be be faced with a situation when by knowledge of the subject to be cialized in may be sound, but a lack of orbiculation on the Rate the overseas student may much

Language teachers concerned the problems of everses we see aware of their frustrates uce anxious to avoid the part dooger of a situation where hid proficiency in longuage as underachievement in that poic! JANET PRICE, Newcastle University.

#### Writing fellowships

Sir,-Why are writers' fellow at universities only for one as in the first instonce or to a most? If a university appo-n indicernan, muse, or least the appointment is for life & pensions and so on.
Why do unthers and is

Why do authors and establing the people only need and left leg-up? Towards what setal; are they being helped?

As a writer, 35 books to esseveral of which are used to establish teachers, I carn at 55 us a distinuan. The serious in a distinuan. The serious in th

year. Su, I apply for research get Sit, I apply for research garning writers' fellowships. But ill clear than universities like to the thirth a writer for a year of neant then have a change. All on the for them. But if I weak a university which is advertish a 44,000 a year past at the money with the recognized writer—my will have to give up her job at we should have to give up her job at we should have to make a lascon.

Whi can tuke in such an liston while can tuke in such an liston pust? Universities should appart writers, as with any niher appartness, as with any least state of a kind of sight.

Anything along mecks of a kind of

Anything else smecks of a kind of philistine illiletonism—these artive fellows are better off in their contracts. garrets, or they're making a m Neithec is true of most witers DAVID HOLBROOK Loogocre, Haverhill Road, Stopleford, Cambridge.

#### Cambridge English

requirements for selected pupils, Schemes that offer entrance to the university for audents who beve taled to reach normally-required standards can probably surviva for a while, particularly if unpublicised, but may altimetely run into various idinds of troubla.

In America tha policy of reduced entrance requirements has been at least one court case successfully contending racial discrimination—albeit "reverse" about requirements has been at least one court discrimination—albeit "reverse" reports of the particular tests (or other particular tests (or othe

British PhDs

Richard Layard puts

to leach mathematics is a mathematic in a mathematic in the local property of the property of

Let's start by raising the standard of teachers

Richard Layard puts forward nine proposals for improving the quality of teacher education of

## When committed theatre moves from agitprop to true politics

Bernard Crick reviews the RSC's production of David Edgar's Destiur which opened at the

Aldwych Theatre last week

Dsvld Edgar is o mon of our times. He edited the sludent paper at Msnchester University and hecame s reporter in Bradford where the students performed his first play, the Notional littsreat and took it up to the Edinburgh Festivol. It was, we ere told in au emphusiastic progremme-oots by Anthony Ever-itt, tha drame critic of the Birmingham Post, "o chronicle hietory of the first year of the Conservetive Govsmiment" of 1970, and it led

the first yeor of the Consarvative Government of 1970, and it led to formation of a small frings of the masses, is a sed joke. The good did days of Unity Theatre! Whet at the masses, and an additional the masses, it is a solid-deception wes three. In fact, or company called The Ceneral Will (presumably, 4 la Rousseau, a faw it is purified and the elect epoch of the corrupted masses). And a has written many another agit-was piece.

All went fearing the worst, more failing than the control of the c

clush of values and interests, and with nucertainties us to which is which. Nothing is mure dramatic

The idea that theetro in our time is a good medium for agitprop to the masses, is a sed joke. The good old days of Unity Theatre! What a solf-deception was there. In fact, it was a device for consoling the intellectuals in the CP, an odd kind of cree for the large suffering rank.

which, whiting is there dramate than pulities except good dramo itself. The theatricality of politics is sometimes appreciated, but very mony "political" playwrighte end producers mistude commitment for palities or the erd of on argument for the process itself.

low boring it is when the convect solution is prejudged and rammed down our thronts, eyes and ootholes. Politics is concerned with conflict, indeed, but not of a single kind or with a single or final solution. May I say—to fish for support from Granisci men at least—that both politics and drone are dislectical politics and drome ere dialecticsly processes? Brecht at his best seee this—as in Golileo—but at his worst, say in The Days of the Computer, it is cordboard-cutout



Michoel Pennington as Major Rolfe, Isn McDiarmid as Turner, and David Lyon as Colonel Chandler.

That is crude! And to the non-

Markist, the synthesis is so sensible and facellar that one wonders if the prior journey was nacessary. But it is right, in a way, and the synthesis is brilliant. Only right at the end does the euthor falter. He shows the Netion

Forward loaders being embraced by er cutting down big business to help court music as the unions. They the unions. They would be wasting their money. A belief in a rigid analogy between the fall of Weimor and contemporary Britain is good for dramatic irony, but is awful poor history or socio-logy. Hera is the enag with topical

revealed.

His powers of empathy are so great that some people, expecting the usual animated eermon, actually took it for an apology for English fastism. So his herald, Antony Everitt, explains all in the programme stotes, invoking what Orwell called "the three sacred sisters";

The simplest was the constitutes what it is the english to the constitute our movement with the utmost brutality." But things do not go wrong because of bed principles atood our principles and emushed our movement with the utmost brutality." But things do not go wrong because of bed principles alone: a Marxiet should know that. railed "the three secred sisters";
The simplest way of explaining what Edgar is trying to do le by analogy with Marxist dialectic. The theirs is bourgeois drams, which describes human believing but does not explain it. The antithesis is agityrop drams which portrays men and women as being wholly determined by social and economic conditions.

Edgar is now attempting a synthesis which explores the dynamic between the simplest of political at Birkback College, London.





Tel.: (202) 838 6765

## New study charter for campus handicapped

hensive regulation bunning discriminatian against millions of handicapped people in the United States has been signed by Mr Joseph Califano, Secretary of Health, Educetion and Welfare. It will became law at the end of this manth.

Groups representing the handicapped were triumphant at their plotory in getting a long-delayed section of the 1973 Rehabilitation Act finally implemented. During the past month they have held e series of demonstrations and sit-ins to protest egalnet the delay.

Universities were not so enthumassic: it has been estimated that it will cost them around \$2,400m to make all the architectural mad-Mications needed to ensure proper access to the physically handl-

all institutions that receive federal government funds, including schools, colleges and health centres, and deals with the way they emdoy, enrol and provide services to

The most controversial point is the definition of alcoholics and lrug addicts as "handkapped". Dr David Mathews, the former HEW Secretary in the Ford Administration, refused to sign the regulation because of this, Some universities were afrald they would be forced to hire "quotes of junkics and

Mr Griffin Bell, tha Attorney General, has now made it clear that at will be illegel for universities and colleges to discriminate against these people. But in a 17-page opinion he added:

"Our conclusion . . . does not mean that such a person must be hired or permitted to perticipate in a federally assisted programme if the manifestations of his condition prevent him from effectively performing the job in question or from participating adequately in tho

tations of a disability may also be such that his emplayment or participation would be unduly disruptive to others, and Section 504 presuntably would not require unrealistic accommadations in such a situe-

The mala regulrements of the

All new buildings must be barrier-free and readily accessible to the handicapped. Structural changes in axioring buildings must be nande within three years. Although not every building will have to heve a lift, fac example, segregated wings for the handleapped will be forbidden.

Employers mey not refuse to employ handleepped people if they can reesonably accommodete on individuel's handicap, and if the handicap does not impair the ebility of the applicant to do the job. Colleges and universities will no

be allowed to limit the number of handleapped people they edmit. Nor may they make use of any edmis-sions test that has a dispropartionote adverse effect on the bandle

Colleges and universities must modify academic requirements to ensure that otherwise quelified students with handicaps ore not excluded. For exampla, they could charge the length of time edlowed to complete elegence.

to complete degrees.

Collega and universities must provide adds such as taped texts or agulpment for students not able to write. Handleapped students should also have the same obsuce as other students to take part in intercollegiere and club athletics with only strictly controlled exceptions.

It is cotimated that there may be es many as 50 million handleopped people in America, including 10 million electrolics and 1.8 million

It is not clear yet whether calleges and universities will get much government money to help them make the expensive architectural changes needed. Many institutions have foreseen this regulation, and most new buildings already have good occess for the handicepped. It is the older and smaller calleges that will find the rebuilding burdensome.

# the will find the rebuilding burden some. This last report, by Prafessor Richard Freeman, of Harverd, found that avarial the federal government employs ebaut 5 pec cent of all American greductes—but anly 3 per cent af all Americans who wark.

medical link

Tecord sum

Prafe; sor Freeman suid the high proportion of black professionals working for the government was a should furn the basis of gredneteo of the same uge.

For the first time in history, professionals major factor undedwing the cub fessor Freeman ald, young highly educated black men and all black women wace beginning their careful deliberative for the first time in history, professional printed to the first time in history, professional printed to the first time in history, professional fessor Freeman ald, young highly educated black men and all black women wace beginning their careful deliberative for the first time in history, professional fessor Freeman ald, young highly educated black men and all black women wace beginning their careful deliberative for the first time in history, professional fessor Freeman ald, young highly educated black men and all black women wace beginning their careful deliberative for the first time in history, professional fessor Freeman ald, young highly educated black men and all black women wace beginning their careful deliberative for the first time in history. Professional fessor Freeman ald, young highly educated black men and all black women wace beginning their careful deliberative for the first time in history. Professional fessor Freeman ald, young highly educated black men and all black women wace beginning their careful deliberative for the first time in history. Professional fessor Freeman ald, young highly educated black men and all black women wace beginning their careful deliberative for the first time in history. Professional fessor Freeman ald, young highly educated black men and all black women wace beginning their ca University of Newfoundland and campaign of any American university of Newfoundland and campaign of any American university. In five years it has reload during the past decade in breaking means of a communicatione satel.

The campaign bears is 1932.

It was not a new foundland and campaign of any American university of interest parts of sity. In five years it has reload during the past decade in breaking means of a communicatione satel.

The campaign bears is 1932.

At the university.

There will be two-way audio-wisual communication, so that participants at all the cires will be able to talk to each other. Between the number of enlowed vide \$35m far student aid end more than \$56m for bidlidings. A new main library now being built will elso receive \$16m in support.

since and five nours produceshing the solution of selected medical dots and companies in Goose and Stephenwille.

elso receive stom in support.

Individuela contributed \$78m, foundations \$91m and business and local governments, as the selected medical contributed \$78m, foundations \$91m and business and local governments, as the selected medical contributed \$78m, foundations \$91m and business and local governments, as the discrimination laws. Overall about 51 per cent of all mele black graduates were employed by governments at all lewels, compared to about 25 per cent of college and sarget, having anly received \$188m and Stephenwille.

elso receive stom in support.

Individuela contributed \$78m, foundations \$91m and business and local governments, as then whites with the seme number of black of college and discrimination laws. Overall about 51 per cent of all mele black graduates were employed by governments at all lewels, compared to about 25 per cent of college and sarget, having anly received \$188m.

The largest group of black 9 per cent more then whites with the seme number of college.

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The largest group of black 9 per cent of college.

The large

In the last of three articles on private colleges, our correspondent looks at their

## Survival—of the fittest

America's elite private universities are so good—the best in the world according to Professor J. K. Galbruith—that it is assumed they have a bright and scenre future. The assumption is probably correct; but his one than invites a complacency that would harrify the universities the date of the world to the few prentigion of themselves.

Despite 41s, however, few people the must be suffered to make a few prentigions of themselves.

Public single-sex colleges, however, have rithed to make a few prentigions of the mixer in the world to the few prentigions of themselves.

Privote education thranghaut America is under considerable financial pressure. The foct that tinancial pressure. The root ender very few private universities have closed in recent years is a tribma to their very considerable effarts to improve their management, cut aut waste, build up their ondow-ments and top new sources of in-coole. It does not mean the threat of bunkriptcy is unreal or that

of binkriptcy is unreal or that inflation has ceased to guave at the foundations of the private system.

Even the great private institutions cannot ignore a disturbing trend: the private sector has a steodily shrinking share af the market. In 1950 it accounted for about 50 per cent of all students receiving higher education. Naw it accounts far only 20 nec cent.

Moreover, as the decline in tha birth rete begins to be felt et collega level, die campetinan for students becames intense. It is very diffi-cult, far political reasons, to allow cult, far political reasona, to allow a state university—a saurce of strength and pride to a state and its legislaturs—to ohrink in numbers and significance or to closa flown altogether. States will probobly allow all kindo of concessions to the public sector to custure that they do not come off worse in a bottle wich the private sector for they do not come off worse in a bottle with the private sector for

In foct such a fight to the denth is unlikely, as the demand for shult and recurrent education will con-

Medical School or the University of Chleago School of Economics.

celve locge private and government research contracts. The money guarantees gaad laboratories ond keeps research teams together.

One reeson, for example, why the Messochuseus Institute of Technal-

ogy regularly taps the list of re-search aword recipients is that enr-ller awards have enabled it to invest

These universities will cantinue

Despite this, harvover, few people he publicly provided because of the see an immediate coul to private constitutional separation of church ace an immedime end to private higher education. Demand seems and state. It was said that the demand for religiously-based higher education would fall off quickly be The first is that success breeds rice tirst as that success breeins success. America's top private indiversities have produced and do still harbour many of the world's outstanding scholars. They have built up an enviolal reputation for academic rigour, research output and pure scholarship of the highest order. Postgraduates from all over the world compact as get into the the figures have not home this on the cod, enralment el denomination secondary schools and college by or three years.

The churches themselves see determined to cantinue to suppor the world campete ta get into the Stanford School of Business, tha Yele Law School, the Jahus Hopkins inve juot announced that some neulleges will be left to fend be themselves but there are my athers that will continue to receive large owns in aid. And Amena largest private university, Irin Young, is clasely connected up to estruct the best teachers and students, which in turn aught to Morman Church ensure that they remain the in-tellectual dynamos of Americe. They will therefore continue to re-

The Cathabe universities in also generally menaged to long their appeal, both by liberalizational, paradoxically, by reaffirment of opiritual role. They have being eatly encouraged by the example of Notre Dome, in Indiana, when charismanic President, Fether has dure Hesburgh, has regularly has tiore Heaburgh, has regularly best wited both the mast influential main the Cutholic Church in Annia lier awards have enabled it to invest and the most influential man heavily in developing areas of knowledge so that expertise has already been established before other university, he has for 25 years by versines have began to get off the

grand.

The other main factor that chould guarantee a place for private cili-cotion for a long time is the demand demand for the hest. Though the reniently grow as the college-eged for oingle-sox education and colleges population falls, and hoth public with specific religious urlentation.

And private universities will edept to the new merket.

But here egain the private sector may suffer: many of ite colleges demic standards and matiration.

Committee to the next the name of the hest. Though the private with specific religious urlentation.

Women's colleges have been small liberal arts colleges are to trouble and ure living from his to minuth. But the best lave may suffer: many of ite colleges

## Carnegie shows government as | Scientists warn blacks' main job benefactor

Separar Kennedy did favor Separar Kennedy did favor Separar Kennedy did favor local communities being allowed to demice now earn ebaut 7 per cent more then whites with similar qualifications while black women earn 9 per cent more then whites.

Republic of Ireland

THE TIMES RIGHER EDUCATION SUPPLEMENT 20,5,77

## Dons strike over sack threat

DUBLIN The Cothotic bishops, who are the unstees and governing board of St. Patrick's Callege, Moynooth, have issued dismissal notices to two grademics in what has now become a cause citcher in university circles beginned the Republic. droughout the Republic.

The dismissal notices followed hard on the heels of a one-day strike organised at St. Patrick's hy the Irish Federation of University

Emrous to West Germany's higher

nerging in the numbers predicted

by the important educational plan-

ning and policy-making badies. Pro-visional figures just unblished by the Federal Statistical Office reveal that since 1973 the number of new students has hardly varied from one

Combining the figures for the summer and winter semesters there were in 1973 165,000 students newly

registered at higher education insti-tutions. The number of first year students in the following year was 168,100 (plus 1.8 per cent), in 1975 167,500 (adus 0.4 per cent), und in 1976 168,100 (plus 0.4 per cent).

These statistics are puzzling for

These statistics are puzzling for they seem to run counter in the development observed up to 1973 and the trend predicted well into the 1980s, According to the most recent foreents of the Standing Conference of the Lander Ministers of Education, for example, the number of school travers with university of the second travers with university of the second to continue to the from 165,000 in 1975 to 210,000 in 1980 and to 250,000 in 1985.

This is due to the standy increases

year la the next.

Switzerland

At the centre of the dispute are
Dr P. J. McGrath, o prices who is
professor of logic et Maynauth, and divisions among the senior adminisdispute has led to serious plans to spread the strike action divisions among the senior administo other compuses.

Student numbers fail to

match expectations

Mr Malachy (PRomke, a former priest, who is a lecturer in French.

Maymonth is a recognized college of the National University of Ireland and is due under higher education reorganization plans to become a university in its own right. But it is also the country's major oational seminary.

Because it is more of NUf. May-

The strike, the first ever of the dispute residual to the strike, the first ever of the dispute residual to the strike that the strike has forfeited his right to the show why they should no real hearing on the strike their resignations (TIES, March 18 and May 6).

The kici archy has not made public broadly based. Father McGrath and McGrath and McGrath and the show why they should not be disputed to the show the strike the str

for university entrance.

Because it is part of NUf, May nooth's solary bill is men by the government. But the bishops, as governors, have the right of hire made fire.

The affair has substantial implication from for the impending legislation which will make Maynouth independent. There are certain to be calls to make its governing body more broadly based.

brought the Church into "dis after is to Rome, remno". IFUT, meonwhile, is considering

## EEC go-ahead for lawyers

The 125,000 lawyers in the EEC will be able to provide their services in any of the member states of from March 22, 1979. A directive to this effect has now been pussed by the Council of Ministers.

The right to pravide services dif-fers from the right af establish-ment which, for instance, embles doctors as from December last year to set up a proclice any-where in the Community. The lotter emoils mutual recognition of quali-fications and diplomas which, as yet, remoins a distant objective for the legal profession.

claing the right to represent a client before the caurts or public authorilles, ha must practise under the same conditions as laryers established in that stole. Thus he is subject to a dual code of prafessional conduct.

of school leavers would be qualified

Forecasts generally assumed that about 90 per cent af these qualified pupils would praceed to higher prints would praceed ta higher education. This percentage is may in aloust although precise information is not yet available. It may even be possible that fewer school leavers than expected abteined the Ahitur or equivalent entranco qualification.

The Federal Ministry of Education has now colled for an attent inquiry into the phenomenon and its reasons. However, these missing

inquiry into the phenomenon and its reasans. How are these missing attidents distributed oming male and femole echaol leavers, saciol class end subject of study? What influence is due to the numerus clausus? Is the pupils decision not to proceed to higher clucation final, ar have they merely delayed their applications? These are the kind of questions which will be asked. The precent directive is based

number of university and callego entrains, the tatal number of students has, however, increased each year. In 1973 there were 690,000 students, in 1974 750,000, in 1975 802,000, and in 1976

in 1980 and in 25P,000 in 1985.

This is due to the steady increase in the size of the 19 th 21 age group which in turn is the nurcaine of the post-war baby hulga. This is explained by the continuous in the nost-war baby hulga. This is explained by the continuous in the nicetive recognizes whith in turn is the nurcaine student spends in higher chication in the directive recognizes whith in practice has been imposed for a student spends in higher chication in the number of applicants was not expected to drop propartionately becouse a higher percentage of engineering.

This is explained by the continuous the directive recognizes whith in practice has been imposed in the directive recognizes whith in practice has devantage, knowever, is to enable a sadvantage, knowever, is to enable a sadvantage or represent his only from 1984 onwards. Even the number of applicants was six and a helf years, and there is very little difference between a student of medicine, of fareign imputation in the host collets or help forced with other practice has devantaged in the difference between a student of medicine, of fareign imputation in the host collets or help forced with other practices.

## Medical schools 'saturated'

Medical schools at Zurich, Berne, Basie, Lausance and Geneve have trached saturation print, occording to the Swiss University Conference, the main coordinating committee to higher education in the federa-

has sent emplicants, the conference letvers, painting out the dis-identages of studying for a medical treer: the costs, the difficulty uf the examinerians and the length of o letter

# face new Transkei university

hief Kaiser Matanzime, has been ustelled es the new University af Transke'a first chancellor—six months after the country's contro-yorsin independence:

The ceremany in Umtate marked the end of the university's status as a cullege of the University of l'orn llare, one of South Africa's hlack homeland universitias. Tho multi-racial university hos 300 students enralled this yeer, end will oward its first degrees in 1979.

warmletinas and the length of course.

For those hat swayed by these typements the conference cannot printer they will be able to study in the medical school of their class.

The conference said that the along priority was to maintain in the along priority was to maintain in the special cost that medical studies in the printing costs that medical studies in the print

"We ere unable to check on the otendaril of tultion at Fort Here because we oro not represented on eny of the committees related to the university's administration', he

education programme.

## 'Red'campus dispute leads to shutdown

STOCKHOLM For the second year in succession, Danish higher education has been brought to a standstill us scudents throughout the country boycott lessons and occupy university buildings in support of pratesting colleagues at the Markist-urlented Roskilde University Centre.

The boycott which began at Rossing examinations to ossess newly introduced abligatory course work

The boycott, which began at Ros-kilde on April 19, now involves more than 20,000 students with occupations at all fice universities, including 16 institutes in the capital openhagen.

Some exams heve already had to be cancelled, elthough occupying students heve allowed university alministrators involved in preparing exoma to cantinue work. However, Dr Morten Lange, Rector of Copenhagen, has refused to let administrators work until all occupations end.

The dispute the latest involved in preparing a trace plan for the centre prapared by the three regions on lier this creating to 600 o year, giring a total of 2,500 students by 1984.

Each of the three faculities would be roughly the same size with be-

The social science fuculty is the largest of the three at Roskilde, which has a tatal student population of 1,600. Last onturn 160 of the 350 new students entered the foculty compared with 140 for the humanities and only 50 in the material sciences. natural sciences.

This entumn, of Roskilde's expected 330 new students, 230 will go to the humanities and 100 to

The changes are part of government policy to bring Roskilde mure into line with the rest of higher education in Deamark. This meant disching many of the radi-

introduced abligatory course work were started. Last spring, structure vefused to six these examinations and 203 students were initially expelled before being reinstated

expelled before being temstated after nationwide demonstrations.

The freeze on tatake coincides with a long-form policy spelt out in a draft plan for the centre prapared

thous end.

The dispute—the latest in a long sequence of conflicts at Roskilde—thus contrast on the decision by the government, in collaboration with the university's three external rectors, to that intole to the two-year basic course in social sciences for a year.

No more students will be admitted until antumn next year.

The social science faculty is the largest science faculty is the sacial aclences—especially full degree atudies—and tawords shart-

term vocationally oriented technola-gical studies is a national one and partly explains the widesprend sup-port Roskilde students are getting in the current dispute,

Despite the recurrence of disrup-tions of Roskilde, its future looks more secure than a year ega, when

go to the humanities and 100 to natural sciences. The social actence freeze will mean redundancy for 10 teochers end the students' oction has been strongly supported by staff in the faculty and, to a lesser extent, throughout the centee,

The decisian to halt intake followed the fellure to agree a new curriculum for the sociel science causes. Chonges were accepted by the other faculties in discussions of the external three-main rectarate by Education Minister Mrs Ritt Bjerregnard at the end of 1978.

February general election the Social Democrats strengthened their hold on power et the expense of the right wing portles which have been most vocal in trying to close the centre.

Mrs Bjerregnard's low-key policy hos been to leeve the dispute to the university autharilles. With the university autharilles, With the main bulk of examinations getting under way this week, pressure for a compromise is increasing and an eventual settlement allowing same students to enter the social sciences this by Education Minister Mrs Ritt Bjerregnard at the end of 1978.

## Political activism under fire

from Guy Nenve

A new altock agoinst growing political ectivism inside the aducation aystem lies been made by Mademe Alice Saunier-Selté, Secretory of State for Higher Education.

Specking to the middle-of-the-raad Féderation Nationale des Syndicats Autonomes de l'Enseignement Superieur, the Secretory of State pleced the bleue for this development on the loi d'arientation of 1968.

The law, passed in the wake of the May uprising, brought about

the May uprising, brought about fundamental changes in both teaching and the administrative struc-ture of French universities. It divided the older and often monollihle ence, called to work out a strategy for the government over the coming inta smeller graupings, tocaned units for Education and Research general elections scheduled for (UER). It slip have them conside Mey.

erable financiol and edministrative antanamy as well es ablifting the emphasis in teaching from lectures Granted that she was speaking

to en essaciation camposed af mid-dle and upper renking university teachers and one not knawn for its redical views, the spectacle of a Secretary of State ettacking the book legislatian governing the lustitution for which sho is responsible ls nanctheless curlaus.

The speech by the Secretary of State shauld, however, be seen in the context of e recent maeting between President Giscord d'Estaing end his Ministers at Rembanifict. The two-day conference, called to work out a strategy for the government over the coming

## ence on Pretoria for its higher Union backs voting system

from William Purvis

for direct elections in place of the present system of collegiate voring whereby all the delegates from a centpus are bound to vote en bluct a campus with 11 delegates might split six-five on an issue giving the majority all 11 votes in any coun-



is known, will last 12 weeks, and will allow doctors in the four hospitals to follow in service courses

three and five hours' broadcasting time will be available every other

The campaign began in 1972, and managad to stay on schedula. By last week more than 54,000 donors had made pledges or gifts, including one anonymous donation of \$15m. The money has been used to increase the number of endowed industry bad. Industry had also ectively recruited black graduates. But blacks with education end experiment those in private business whereas the opposite was true for whites.

One out of every eight black American men with a degrea is employed. But thore are ligh pruportions in by the foderal government, accarding to a recomity published study. In some flaids the impartance of government employment to black for the government (compared to 14 per cent of inwyers averell) and graduates is even greetar: it is accounts for one in four black male scientists and computer specialists.

scientists and computer specialists, and one in five engineers and 'Iralitianally, Professat Freeman cold, blacks hove carned fac less than whites no multer what their level of education and experience, with college-educated blacks farther behind whites with the same experience than those who finished their education at school.

By 1974 the income differential accountants. The atudy is one of the very leot to be issued by the Carnegia Commission an Higher Educatian, o commission that produced a shelfful of studies covering every aspect of higher educatian, end which officially wound up its work in 1973. It has been succeeded by the Cernegle Cauncil for Pallcy Studies in Higher Education.

their education at school.

By 1974 the income differential among women had ended, the report said, and black women groduates earned about 10 per cent mure than white women graduatee. But among men the everage income of blacks was still 29 per cent belaw that of whites. Among mele groduates blacks earned 23 per cent less than whites. However, because of heavy recruitment of recent black graduates, those in their late twenties carned 9 per cout more than white graduates of the same uge.

women wace beginning their cereers on "rough perity" with comperable whites.

But, ha ediled, the reletively slaw progress of older black men meant that overell perity had not been attained, and wes unlikely to be ottelned far many dacedes.

His report emphasizes how offirmetive ection programmes have led

to strong demend for black teochers at calleges and universities. Black lecturers naw have o modest advontage over whites. Those with doctorote degrees carn slightly more then whites with the seme quelificutions, while black scholars get peld considerably more then whites with the seme number af erticles published in academic journals.

Senatar Edward Kennedy in the semantar base only almost at safeguard bill was only almost at safeguard ling the method.

Seoatar Kennedy did joyad in base of the staff of th

## against local genetic bans

wurning that any legislation allow ing lacal communities to be generic research ur setting stricts regulations than the national guide llnes would set a dangerous prece

Members of the National Academy of Sciences said in a ter-alution that the research institutions of America were an impor-tant national resource, and diffe-ing local options could subject that resource to arbitrary regulators

"Overly restricting this type of rescurch would severely degree the cupublity of biomedial rescarch and limit its coordinate to the public welfare. In essential would allow a lacal community of the public rescarch and community is a contract of the public research and the community is a contract of the public research as a contract contract of the notional policy."

The signalories soid the Niconi Institute of Health guidelines of cauthiount DNA research we be result of careful delibers the

ottelned far many dacedes.

His report emphesizes how offirmetive ection programmes have led to strong demend for black teochers at calleges and universities.

His report emphesizes how offirmetive estage, end no final draft has milited stuge, end no final draft has perfect the stuge.

Senate or the Hause at Represent.

Senate or the Hause at Represent.

## South Africa Recognition problems may

from Martin Fcinstein

CAPETOWN The Prime Minister of the Transkei,

said.

Ashough it is the country's oldest bleck university, Fart Hara still has a white rector and has appointed only one bleck professor. The iosue less highlighted the Cickel depend.

Power and responsibility in local government



HIGHER EDUCATION SUPPLEMENT New Printing House Square, London WCTX 8EZ, Telephone 01-837 1234

gone wild with enthusiasm about the idea. It will continue to operate on a trial least until 1982, and the scheme—the experience of the scheme—the experience of the scheme in year that the council is to contribute represents only a play proportion of its \$140m\$ total kodget. Other schemes to improve the postgraduate training of engineers, such as Total Technology and Cooperative Awards in Science and Engineering (CASE), will continue in parallel.

The simulation of the scheme in the experience of the scheme in year the two properties started in 1975/76 indicates that some firms to look on the teaching composite to improve the submitted to look on the cheap. The scheme is neither space nor time to fallow Mr Walker into all the still issues be has raised. Here I constitute in the grievance. This arises from the events following the report in the company are given really continued to the control in 1975/76 indicates that some firms to fallow Mr Walker into all the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to the side issues be has raised. Here I constitute to

fing companies going over the next five years, and there is unlikely to be a shortage of applicants for the money available. Indeed there may be more danger that universities and polytechnico eager for a shore of the action will pair aff wida neighbouring firms and submit proposals without think-

that universities and polytechalco eager for a shore of the action will pair off width neighbouring flows and submit proposals without think-log carefully and deeply enough about what is involved in a teaching compony.

If a significant proportion of the proposals with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups with university teachers. They did not say that the two groups were comparable. The principle dispersion with university teachers. They did not say that the two groups were comparable. The principle dispersion with university teachers. They did not say that the two groups were comparable. The principle dispersion with university teachers. They did not say that the two groups were comparable. The principle dispersion with university teachers.

## **Inexpensive experiment**

The idea of teaching schools put forward by Richard Layard (page James committee pruposal that Ilf is worth serious consideration. The schools would have a complete stoff of teacher trainers but most the schools should designate one senior teacher to cope with all probasions of teacher trainers but most the schools are but to senior to cope with all probasions of teacher trainers but most the schools are present. The forward by the schools should designate one senior teacher to cope with all probasions at the schools are present. The schools would have a complete stoff of teacher trainers hut most of the teaching would be done by students. For the pupils there would be clear advantages. They would be tought in institutions of high quality by enthusiosite teachers, through eere would have to be taken to make sure they were not treated as guinea pigs. Another prablent would be thot of cantinuity. Some teachers argue that even est secondary level this is of the utmost importence, but such an organism would have less force in e tonching school. Surely an experiment of the sort advocated by Mr Layord should be tyled.

Similar there was o disparity, even in them there was o disparity, even in the public school, and between comprehensive mode and utmost importance, but such an organism would be thot of cantinuity. Some teachers argue that even est secondary level this is of the utmost importance, but such an organism to the sort advocated by Mr Layord should be tyled.

Similar must be done to dighten up the inservice and the present cutback in the number of the sort advocated by Mr Layord should be tyled.

The politics of the Great Debate, the conflict hetween comprehensive mode dequate.

The politics of the Great Debate, the conflict hetween comprehensive mode dequate.

The politics of the Great Debate, the conflict hetween comprehensive mode and particles and the transfer of importance, but there was a detailed in be put right. Because of the 12-month rule in interpretation of what there called the beautiful the put right. Because of the 12-month rule in the requirements of the 12-month rule in the result which needed in be put right. Because of the 12-month rule in the put right. Because of the 12-month rule in the requirements of the put right. Because of the 12-month rule in the requirements of the 12-month rule in the put right. Because of the 12-month rule in the put right in the put of the conflict in the put right in the put of the conflict in the put right in the put of the put right in the put of the conflict in the put right in the

is the secondary level this is of the secondary level the secondary level this is of the secondary level this is of the secondary level the s

## LETTERS TO THE EDITOR

## University pay grievance

country.

Yours faithfully. GEOFFREY TEMPLEMAN,

Chairana, University Authorities Panel.

More teaching companies

The entroit climate of concern about the interfoce between industry and education, especially engineering, will ensure a general well-come for the decision by the Science Research Cauncil and Department of Industry to extend the sealing company programme.

The SRC cannot be said to heve gone wild with enthusiasm about the education to said the obstance of the company programme.

The SRC cannot be said to heve gone wild with enthusiasm about the idea, it will condition to extend the gone wild with enthusiasm about the idea, it will condition to considerable control to specify the controlled to the profit of the decision of the company programme.

The SRC cannot be said to heve gone wild with enthusiasm about the idea, it will condition to devote to needing, in order to ensure the low of indicates it has some the state of adequate state of adequate the profit of the controlled to the past two years to spend on research to spend on research to spend on research to spend on research the submitted to spend on the scheme—the experience of the five planeer projects started in the scheme—the experience of the five planeer projects started in 1975/76 indicates it land some times to what the planeer projects started in 1975/76 indicates it land some times to what the planeer projects started in the scheme—the experience of the five planeer projects started in 1975/76 indicates allow some times and the scheme industry and characteristic planes and the scheme industry and characteristic planes are the miscrophic planes. The submitted the programme of the body which the past two years to spend on research to spend on the scheme—the experience of the five planear projects started in the scheme industry and the scheme ind

to falbuy Mr Walker hou all the of continitiee, whose terms of reference excluded indiversity teachers. projects by other students, especially undergraduates.

The teaching companies still lack s control coordinating organization to make sure the lessons of inflividual projects are learned by all the Houghton Committee nande control control to the still and the sure that the still are the still ar

Sir,—f.ast week's THES (May 13) contained both on article and an editorial about university teachers' pay and although some of the goints made were valid inhers were non. Your editorial alleges that art important principle beginning to dominate university teachers' pay notice. cruted in undertake work compar-nbly to diat done in a university should enjoy broadly comparable curser prospects to those of their oniversity counterports. In fact the Houghton further education scales, effectivo from Mny 24, 1974, put the university scales of October 1, 1974, at a considerable disadvantage. The University Authorities Ponel and the AUT made lumediate representations to the Government, which accepted that there was a disparity, even an its name interpretation of what Houghton required, which needed to be put right. Because of the 12-month rule in the then pay rade an immediate increase was missible for university teachers, but the Government agreed that there could be a two-stoge adjustment. In Stage 1 there would be an immediate reappraisal of gendemic salaries, and the result would be an immediate refrom October 1, 1975; to it could be aided in Stage 6, from the sandulate, the cost-of-living rampensation for the period October 1, 1974, in September 30, 1975, alluved by the social cantroot. lu fact the Houghton further

"For workers utality in the field of pure and applied research the Punel will utopt the following standards (Panel A Candidates):... runer will uttopt the following standards (Panel A Candidates):—
(if Fur promotion in Scalar Principal Scientific Officer in equivalent level in condidates should be at the general level of initial payment for skil, is nearly as tional payment for skil, is sites, the readership before the universities, the readership helps of the listed. Whilst respect (and the conditional payment for skil, is a type where the neighborhood.)

## Democracy at w

It is not a question of jealousy or inter comparable groups in the public sector. It is a question of securing pruper recognition, however belated, of an arbitration the nature of special sectors are equally to the nature of special sectors. ever betated, of an arbitration invard and, even more important, of trying to prevent further damings to the already impaired ability of universities to reccuit and hold staff of the quality required. tutiun of higher leaning to trobeept of ecademir in the trobeept of ecademir in the trobeept of the trobeept of the trobeept of the trobeept of equals, and or the trobeept of equals, and or the trobeept of equals to the trobeept of equals to the trobeept of equals of the trobeept of trobeept of the trobeept of tr staff of the quality required to en-sure die unking of their essential contribution to the future of the

Fourthly, responsibility menns deciding with concern for consequences. It is the apposite of outomatic, arbitrary and rush decision-making. It emoils exercising prudent forethought and considering the implications of one's octs. It is linked to the preceding three in that an occount of the performance of an ubligation should be a reasoned explantion. It is not appeared to the performance of an ubligation should be a reasoned explantion. at large does not apply intel Whilst not wishing ute sprict a parallel between the of calucation and of later riew expressed leads many colories and the spring ries of the spri contained both on article and an editorial about university teachers' pay and alhough some of the moints made were valid inhers were non. Your editorial alleges that art important principle beginning to donning the principle beginning? As early as 1964 these comparisons were the National Incames Commission and ulthough we have had negotiating rights and machinery only since 1970 these comparisons have been a regular feature of mor claims. It is not only us who formulate the content of the Civil Service to parisons. In guidonce given to parisons. In guidonce given to parisons. In guidonce given to parisons, in guidonce given to parisons. In guidonce given to parisons, in guidonce given to parisons. In guidonce given to parisons to parisons and the comparisons and the comparisons and the parisons are parisons. In guidonce given to parisons and the comparisons are parisons and the parisons and the parisons and the parisons are parisons. In guidonce given to parisons are parisons and the parisons and the parisons are parisons and the parisons are parisons. In guidonce given to parisons and the parisons are parisons and the parisons are parisons and the parisons are parisons. In guidonce given to parisons are parisons and the parisons are parisons. In guidonce and the pariso ation. It is not enough to say, "they called and I responded"; one must show that con-sequences were considered. Having to justify to onother what has been done should encourage o regard for the consequences of

equally important factors be minime equitable payors intrinsity rewards and are, available in those who

one's octs, Implicit in these four elements of responsi-Implicit in these four elements of responsibility—accountability, causation or unthorization, obligation and concern for consequences—are three further fentures. Responsibility lavoves a relationship between the one who gives the account and the one who receives it, between the one who performs the obligation and the one who performs the obligation and the one who conferred that thirty and its carresponding nuthority and purver. Responsibility is a relationship in which the former is sensitive in the latter's wishes, demands, interests and needs. It is a relationship in which one contrais the other. Responsibility is a voy, then, to contrain the exercise of pawer. exercise of pairer.

But, seemally, ultitaugh one may control the other, the futter is not an unumation, share having to give out uccount of what one has

not to.

Thirdly, responsibility means obligation. Having restonsibility for something entails that ane has a duty to perform. Some function, task or role has been loid on one. This element is linked to the first tive in that one is answerable for the performance of the duty, and that one has the capability to perform it or to cuntrol its performance. To be accommishe for the accommissioners of an obligation implies the capacity to determine, control or outhorize what is dance.

done ar not done implies that one could have been not done implies that one could have been dan one did. Responsibility, therefore, entails the conforment of same discretion; not absolute discretion, but bounded by the authority and powers conferred.

A responsible person requires a certain freedom of choice: he is not compelled to not in a definite way by detailed instructions. Discretion is essential, especially if the responsible actor is to be influenced by his assessment of the consequences of his actions.

Thirdly, for one person or institution to be responsible to another, arrangements are needed to communicate information about the performance of the function to the one assessing the performer. The construiter needs information to judge how adequately the one ansterable has acted. Responsibility requires accessible information on which to have judgment.

### Layfie'd report

The relotionship heaveen responsible government and its financing was discussed in the Layfield report on Local Government Finance. The Layfield, responsible government indance wherever is reaponable for deciding to spend the responsible for deciding whether to rate more or less tayerion.

rdia more or less taxation."

This view is based on an argument, outhoritatively expressed by a number of major inquiries—for instance Holdane in 1918 and Plowden in 1961—that responsible policy decisions, involving public expenditure, should be taken with an awareness of the lost ced. Aspirations and resources need to be brought into balence. Both need to be floated and reconciled at one point. Other more oc less taxation ". focused and reconciled at one point. Otherwise no price will ever be put on fulfilling expectations; and inevitebly they will become ambidous and outstrip available resources.

Layfield found that present financial arrongaments did not encourage responsible local government because there was no clear relationship between local expenditure and local laxation. The reason was that a high proportion of local authority expenditure was ing, at the timo of the Layfield reput, to 65.5 it lead been 51 per cent. This high and increasing grant eevered the direct link

Responsibility is a multi-faceted concept, rumposed of four inter-dependent elements. The first—and etymologicol—meaning is occount ability, which is the liability to give an account to another of what one has alone or oot done. It is the untilbesis of amonomy, where accountability is to moself alone. Responsibility as accountability implies a Hoblity to exploit in someone else, who has authority to assess the occount, and allocate making and taxing upon which responsible government is based. The majority of the Layfield Committee anguer day and taxing upon which responsible government is based. The majority of the Layfield Committee anguer day and taxing upon which responsible government is based. The majority of the Layfield Committee anguer day and taxing upon which responsible government is based. The majority of the Layfield Committee and the second day and taxing upon which responsible government is based. The majority of the Layfield Committee and the second day a dight level of grant was acceptable if the main responsibility for local government expenditure and its financing and taxing upon which responsible government is based. praise or censure.

Secondly, responsibility means being the cause of an action. Being responsible for something suggests that one is its origin and creator, or continuing motivator or controller, or authorizer. This element is linked to the first in the sense that one should be occountable only for what one should be occountable only for what one bus caused, determined or enthorized, or for what one could have coused, determined or authorized, but decided

revenue: rates could remain as the sole local tax.

But if the main responsibility far local government expenditure and his financing were to lie with local government, then the level in grain had to he reduced. It recommended a local income tax to replace part of the grant and to supplement rates. The target was to reduce grant from 65.5 per cent to ot least 50 per cent; In-fact, the committee found that if the objective of grant were limited simply to equalization, to compensate for disparkites in resources and spending needs, then grant could fall to 40 per cent. So tha Layfield solution was drat local income tax would take up the financing in 25.5 per cent of local expenditure previously provided by grant.

Cribics of Layfield, however, assert that thera is no connexion between grant and responsible local decision-muking. If there were to grouts, and local authorities had to finance their expenditure totally out of their own taxes, that would not necessarily guorantee local responsibility, because the Government could still issue a lorge number of policy directives that could severely constroin local authorities.

On the other hand, even if local outhorities were financed totally out of grant, as long as it were in the form of a block general grant, without strings outsched, lucal authorities would be free to spend the money and accountability to its volors for the way that money is speat.

Froncis Cripps and Wynne Godley of the department of upplied economics at Combridge olleged that the "fotal confusion" in Layfield's argument is that which "supposes local autionity to the two or to tolso local taxes, thereby Ignoring the autonomy that ilerives frame grant that is nor hypomecened." [Pleilged in s particular budget].

There is also the argument that the higher the percentage of grant the more effective can be nearly as the form of the receives in the context by magnifying their influence on the rutes. If rates cantifities in period the process in expenditure will have a dispropartionately large impact an local tax.

But if the umin responsibility for local

have to be ruised to £51 million—an increase at two per cont.

By contrust, if the block grant had facen £75m, with retos having in meet only £25m, then a similar 1 per cent increase in total expenditure would increase the rates by £1m un £25m, or 4 per cent. In the lotter example the retepayer would be faced with a percentage increase twice as large as in the farmer, although the same increased expenditure is involved in each. Thus with a higher level of grant, "the scusitivity of rates to local decisions an marginal expenditure hos uctually been increased".

This argument—what responsible focal government is possible—even if it is dependent on a high grant for financing its expenditure—is defective begings ft. is based on a mirrow concept of responsibility and facilie to take into secount political factors. When the pullical dimensions of a high grant are considered it becomes clost that responsible local government is not encoureged.

tible local government is not encouraged.

sille local government is not encouraged.

Where geent is a preponderant and growing part of local rovenue, the Government will seek in ensure that it is spent in accordance with national policies and priorities. The geant represents manay that contral departments have faught hard to obtain against the Treasury and other departments with their cival programments.

Treasury and other depectments with their rival programmes.

Each department seeks to advance the particular aervice it tooks ofter—education, housing, social services or roade. Civil servants end ministers, having fought hard for grait on behalf of their service, are not likely to relinquish their concern with the mooay mad as defenders end promoters of perticular services, they wish to ensuce that the grant is spant on their services, es they eaid it would be.

Civil servonts elso wish to protect their minister from criticism in Pacliament about the poor performance or inadequeries of services. A high grant, therefore, pulse the centrol officies to involve themselves in local affairs. Central civil servents and ministere,



Frank Layfield, QC : " subtfe segumeot ".

observing the bigh level of groot, feel that they should intervene in focal government matters. Similarly local ambority officials and councillors, tecognising the high level of grant, feel than they have little justification for cesisting departments. The political consequences of a high grant are to increase the pressures for central involvement in local government.

The political amborities to determine their priorities within the total. This approach egain neglects provides to be accordible political.

However, a high grant may be significant, not so much for setting up pressures that push the central government to intervene in local government offoirs and to assume responsibility, but much more for moking acat authorities leel less responsible. Local government responsibility is undermined by a high level of grant, and—especially if it rises each year—because the attention of a local sutherity is turned more to the centre than to its voters in the local community.

The size of the grant is more important to a local council than the wishes of local citizens. Through the gearing effect, quito a small change in the grant of the centre, in the total, in the formula, and in the actual distribution can have major consequences incolly, producing for some authorities at micapected windfoll and for others a dramatic shortfell, even if they had all declifed on similar increases of expenditure in that year. However, e high grant mey be significant,

#### Political pressures

In this sililation, neither the public nor elected members can assess whether the level or reto of change in the burden of local tax was the result of decisions of the local authority, or of central government, or of fortuitous changes in the geent. A high level of grant in practice does not enable local taxee to reflect local spending decisious. Responsible government is undermined.

of grain in practice does not cliable local in taxee to refleet local spending decisions.

Responsible government is undermined.

The argument that a grain of whatever level, even 100 per cent, does not undermine level of responsibility can be meeningful assume that rosponsibility can be meeningful assume that rosponsibility can be meeningful assume that rosponsibility, can be meeningful, assume that rosponsibility can be decided by the decided assume that rosponsibility can be decided by the decided assume that rosponsibility can be decided assume that rosponsibility can be decided by the decided assume that rosponsibility can be decided assume the decided assume that rosponsibility can be decided assume that rosponsibility and code conditions and the rosponsibility can be decided assume that rosponsibility and code conditions and the rosponsibility and code conditions and the rosponsibility and code conditions and the rosponsibility and code

It is also said that a considerable degree of responsible local government could exist, with a high grant, if the centre simply sets the total of local government expenditure and leaves local authorities to determine their priorities within the total. This approach egain neglects politics. A total has to be acceptable politically. The total has to be token hat its components so that the way the total was constructed can be instified.

To show that the total makes agens involves examining in detail its make up. Further, that main concern of the organization will concentrate on the changing elements, and controversy will

alterutions in it; uttention will concentrate on the chonging elements, and controversy will orise over whether they are justifiable.

The centre will not be limited to setting talals of expenditure, it will be pulled in by political pressures to exomine the detailed computerns of the total; and because it does so, it will be held responsible for the consequences of those expenditure decisions—the policies that follow from the total.

The setting of grant cannot be determined simply by objective criterin: the critical docisions—and they become more crucini the higher the grant—are political, acising out of the pressures of pulitics not only between the pulitical parties, but also between and within the local authority associations, and between the associations and central governbetween the associations and central govern

ment.

The Layfield argument is subtle. It is not soying that e reduction of geant and the introduction of local income tax will autometiculty guaranteo local responsibility. Tho ceport states clearly that it would not be worth the expense and upheaval of doing so unless there were also a change of political attitude. There has to be a political will to make local responsibility work; there has to be a cleac belief in the value of local government.



## 

## The damned, the blest and the rest

Enemics of Society by Paul Johnson Weldenfield & Nicolson, 15.95

This is a book in which the defen-This is a book in which the defenders of civilization are distinguished from the barharlans with unusual clarity and vigour. There are those on my left hand who depart into domnation: David Maza, M. F. D. Young, Lévi-Strauss, Marcusc, Wittgenstein, Teilhard da Chardia, Ruskin, McLuhon, Laing, Sartre, Illich, Weher (Max not Carl Maria von), Marx, Durkheim, Frend, Adler, Foucault, Bultmann, John Robinson, Eric Robinson, Jan Tuylor, Clark Kert, Liutel Robbins, Rubin Illackburn, And, by contrast, there are chose on Lionel Robbins, Rubin Blackburn, And, by contrast, there are chose on my right hand who carer into elernal blessedness, or at any rate varying circles of purodise: Moses, St Augustine, the translators of the Authorised Version, Adam Smith, John Henry Newman, Lord Haltaline, Keynes, Ortega Y Gasset, Knrl Pupper, Ifans Eysenck, Nunni Chomsky, Peter Medawar, E. H. Gombrich and (with reservations) Mary Douglas.

There are also one or two in-certain spirits tylio are allowed in Limbo, like Bertrand Russell, but they have very lidde company. Of course, not all the infernal crew may appreciate the ample commany offered them. I doubt very much whether Linnel Rubbins and Robin offered shem. I doubt very nuch whether Linnel Rabbins and Robins Blackhurn ever expected to share the same condemnation or have a fellow and the approach to adequately prepared themselves for it. And I would say there are one heghs to have a fellow prepared themselves for it. And I would say there are one heghs to have a fellow prepared themselves for it. And I would say there are one heghs to have a fellow prepared themselves for it. And I would say there are one heghs to have a fellow prepared to prepare who are a shade unlacky (or if you prefer, an unlacky) (or if you prefe

sideways, partly I think because Poul Johnson has not focused his sights on her quite strangly enough. Of course aha is a good Cotholic and a very good anthropologist, but she cannot be obsolved from the vica of relativisor. It is not merely thot radicals uso her for relativistic purposes. She is herself a relativist. Paul Johnson may appeal to her for e defence of orientation and boundary markors but sha is a very dadgy character when it comes to ruth. As for Hans Eysenck he is in civilized company, just because the barbarians cannot stand him. I find the inclusion of H. J. Eysenck indicative of what is the motter with this book. He is in because they are out. They shouted him they are out. They shouted him to say. When one recollects the egregimus rulgarization and scientific cridity of the concept of intelli-



The Day of Judgment by Fra Angelico.

Rubbins finds hinself la comp.

to which he is not account. The Early Modern Town; A Reagler Fourth, in the voll of disc. sedled by Peter Clark are all places who inver the a Longman, £6.50 and £3.10 govies of civilization, embal. ISBN 0-582-48404-9 and 48405-7 mindress as samily, colebrates: Eoglish Towns In Transition 1500-nml violence as authenticity, 1760 ting the judgment of the mig. by Peter Clark and Paul Slack over the judgment of the mig. by Peter Clark and English over the judgment of the mig. by Peter Clark and English over the j

The gentry's playground

admiration.

The remaining chapters are by English historians on English the inclusion of two articles by W. G. Hoskins is a just tribute to his ploneering effort in the field of urban history. It is good to have Professor F. J. Fisher's relatively little-known 1971 article on "London as an 'Engina of Economic Growth" reprinted and its reappearance will produce reuewed regrets that its author has been content to publish so little.

The provincial copitals are well

The provincial copitals ara well reprasented in this collection, and Bristol and Leeds get separata chapters. Part of Alan Everitt's important chapter on marketing, originally published in The Agrarian History of Eugland and Woles, volume IV, 1500-1640 (1967), is reproduced here.

As seen from Holland's salon

illustrate the historiographical part of the editor's introduction. The extract from Sjoberg's The Prv-Industrial City (1960) serves largely, of the outbor's model, in which the term "pre-industrial town" seems that come little more than a residual congory. The extract from Braudol's all-ombracing and insightladen Capitalism and Muterial Life, 1400-1800 on the other hand, leaves one in a state of dazed animirstlan.

The remaining chapters are by English historians on English innyrs, and the includence in the includence of the meropolity and insightlant of oligarchies—one of the meropolity and incoming gentry by 1700. The decountry gentry by 1700. The decount

countryside.

The dichommy between rich and noor in the turns of this period is another thema which the authors explore in the light of their own researches. Poverty daily Invades us like an armed man, bentoaned the town clerk of Norwich in 1570. Particularly concentrated in overcrowded and insanitary suburbs oway from the central areas where prosperous merchants and gentry lived in their brick-bulk houses, poverty was the most serious of all urhan problems of the time. Seen from above, disease and disorder invariably went with it. The view from below, of course, was very different. Poor men will speak one day, muttered a Norwich cobblar in protest against harassment by urban officialdom in 1554.

The authors rightly emphasize the

volunce IV, 1500-1640 (1967), is reproduced here.

In the second book, Peter Clark and Poul Slack go over some of the same ground which they covered in a trevious publication, Crisis and Order in English Towns, 1500-1700 (1972). However, much new research in this field has been done even in the past five yeors, so the appearance of their now book, English Towns in Transition, a compoct, up-to-date, and stimulating synthesis, is to be welcomed.

Porhaps 20 per cent of England's population in this pariod could be described os urban, living in murket and county towns, in the new seventeenth-century spae, industrial centures or dockyard towns, in the provincial capitals (Bristol, York, Narwich, Exeter and Newcastle), or in Landou, by 1700 the largest city in western Europe. Clark and Sluck camment perceptively on the changing reinclonships between the infiferent kinds of town, an the external pressures which were imposed upon them, and on the new urban stability that was unticeably canering by the end of tho period.

Much is said, far instance, about the important sacial process which were in a majority of cases had transformed thu corporato urban canner formed thu corporato urban canner in protest against harass ment by urban officialdom in 1554.

The authors rightly emphasize the numban internal procustions of Pruritonism and Dissent, and say soutething obout the sex in twins interest against harass ment hy urban officialdom in 1554.

The authors rightly emphasize the numban internal procustions of Pruritonism and Dissent, and say soutething obout the interesting too, they reinforce what Professor Everit has written about the social significance of the urban should the social significance of the urban should the context of the urban should the context of the urban should the context of the urban should the contex

## Psychologists on

languieus with thirteen of the most important psychologists of our age . . .

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ic Law of Habcas Corpus by R. J. Sharpa Clarendon Press: Oxford University Press: £10.00 ISBN 0-19-825332 X

Englishmen take great pride his wished; the immigrasion Act 1971.

Englishmen take great pride his believe, between them and govern-mental tyrahy. So long as it and the period postders who wished and provides the pride his prisoner of nobiling.

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Purliament from legislating to crode freedom.

During the Second World War regulation 18B authorized the Hoise patients, imprisonment of laws patients, imprisonment of laws postency to imprison onyone he series entery to imprison onyone he denies entry to lorge numbers of united "Klogdom citizens who mer whatever—justifies cases, or involve the detention, habeas corpus will contribute the detention, habeas corpus will contribute the derivation of this kind are few. The profit is really to lorge the long some aspect of immigration law, are used to appeal against the detention, habeas corpus will contribute the derivative cases, or involve the despetation of this kind are few. The profit is really the long the long years of this kind are few. The profit is really the long the long years of this kind are few. The profit is really the long the long years of this kind are few. The profit is really the long the long years of this kind are few. The profit is really the long that the long years of this kind are few. The profit is really the long that the long years of this kind are few. The profit is really the long that the long years of this kind are few. The profit is really the long that the long years importantly in practice either chains and explosion of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of this kind are few. The profit is really the long years of the long years of the long years of this kind are few. The profit is really t

Paul loss suscial forty nage introduction as time parishing these irregulorly kept diaries, plemented by Holland's Intermedial Kriegel recalls the man English approximation of the continental salon, wears

portraits of the Whig ministers and if the "coming men", the accounts of cabinets and inter-ministerial colloquics and conversations, the evidence of mounting difficulties due to reliance on Radicals and Irishmen for Commons originites, an obsession with the harassment of his former colleagues by Brougham. Ahova all we see that the concrete of collective responsibility had out quire hardened, and that the nitoparch remained important. It is, not remained important. It is, of course, well known that Mclourne allowed the King in effect to dismiss him and seed for Pcel on the advice of Wellington, but that the king had to how to tha new Commons voices and take back Melbourne "burdened" with the Dourlet Southgate.

The Lords into possing Reform. The editor rightly notes his old-fashioned interest in constitutional diplomatic problems and his Whiggish unconcarn with the "Condition of England" quostion. Foreign Enlistment Acts, not Factory Acts, ware his cup of teamory or glass of port.

It is a pity that the editor, having gone to such trouble to correct Hollend's misspelliugs and idantify people in copious notes, did out proof-read the text well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough to prevent such errors as "mora" appeoring for "mere" and the index well enough bourne "burdened" with the Russellite lish Church measura

tugal—nud he overlooked Louis
Philippe's nolidcal and diplomotic peccadilloes. By comparison, Palmersion's ossociation of continentol liberalism with nationolism was skin-deen and he thought that British interests in the East required a break with Fronce in 1839.

It is appresent that, though incomoderate, able to discern Iberian worts and aware that little could be done for the Poles. So, also, in home affairs. He accepted that ballod Conningite Tory ministers in 1827 and accept one of them—Melbourne—as by 1833 as alternative to Althorp for the succession to Grey as premier and envisage Stanley rather than Russell for successor to Althorp in the Communs. (Russell drove Stanley out by a personal initiative on the little Coule of the communs of the proper of the people. The Whigs were no of the people of the indignity of admitting Publick ophnion or dictation, as they drove Stanley out by a personal initiative on the Irish Church in 1834.)

The prima interest and value of the diaries consist in the penportraits of the Whig ministars and uf the "coming men", the accounts of cabinets and inter-ministerial

Donald Southgate

## 

## On mathematical truth

Aristotle's Metaphysics, Books M notes by Julia Annas Clarendon Press: Oxford Univer-sity Press, £6.28 ISBN 0 19 87208S 8

Aristotle's Metaphysics, Books M and N, is primarily an attack on platouist philosophies of mathentatles. "Plotonism" la e generic name for philosophies that explain the truth of mathematical statemems in terms of the existence of abstract objects, numbers, and relations that hold arrong them. For a platonist, the name of \$20 functions as a name of an object, the number two, which is supposed to exist outside of space and time. A sentence "2+2=4" is true, for a platouist, if it makes a true asser-

Aristotle argues in Books M and N that platonism is both managessary and incoherent. He believes one can give an account of mathe-matical truth that does not invoke the existence of abstract objects. Mathematicians do not study a special domain of objects, they abstract and study certain properties of ordinary objects. Further, Aristotle shows that the questions of what nu obstract object is, how it is made up, what relations it hears to other abstract objects, lead to

Like so much of Aristotle's work, Memphysics M and N are n response to the philosophical beliefs of others. This makes M and N especially difficult, for the exact structure of the mathematical beliefs Aristotla attacks is not clear. Julia Annas's 90-page intro-duction does an admirable job of duction does an admirable job of setting the stage: by the time one begins the text, one has the comfortable feeling of being able to anticipate the problems Aristotic will confront. Annas brings into rellef subtletles in issues that may have initially appeared obvious. For example, ale shows that the question of wbother Pinto was a platonist is not trivial. The lack of explicit commitment to the oxistence of numbers as a phartacle. tenner is not involve. The lack of explicit commitment to the oxistence of numbers ns nbatracl objects is suspicious, but Aunas marshols a wealth of implicit evidence in support of Pinto's planulus.

She also offers clear, definite interpretations of Aristotle's darker comments. For example, Aristotle attributes to Plato a helief that all numbers can be derived from the principles of "one and the Indefinite two". What are these principles? The problem is that the principles for which there is textual support do not seem to be capable of generating nH numbers. Amust patiently describes the textual evi-patiently describes the textual evi-ilence, outlines the obstacles con-fronting any solution, then offers on interpretation which, at least, proposes an answee to every prob-lem. The debate between platouism and

the debate betyeen platoursu and anti-platouism is still active. It is it out that while profound routributions to philosophy have recently been made by anti-platouists, the two great contributions to logic of the past hondred years—Frege's formalization of the predicate conculus and Gorle's proofs of incompleteness—have been made by unmosphere the temptation to anach-rouism when laterpreting Aristotle's work must be almost over-whelming. It is a temptation Annas whending, it is a temptation Annas completely avoids. She uses the writings of Frege and, to a lesser extent, of Russell, Quine. Godel, Benucceraf not in attribute their heliefs to Aristotle, but to make clear what Aristotle's heliefs ivere. Aristotle enjoyed the luxury of forming his phylosophical heliefs in critical reaction to Plain. One feels a sweet sense of justice when an

Indeed, if there is any problem with Annas's use of undern authors it is that she accords to Frege the unquestioning respect previous generations accorded Arlatotle. Frege finds the helief that mathematies abstracts properties from ordinary objects incoherent. orgues that one cannot specify the degree of inattention that must be pald to physical objects in order to derive mathematical properties. Amas duly cites Frege's stinging

There would, however, be merit in seeing whether Frege's erkicism can be dismuntled or whether thete is a brand of abstractionism that circumvents the Fregent attack. Anti-platonist philosophies hove recently touded to focus

Witigenstein, on a critique of the theory of meaning for language as a whole. I think Dummett is carrect that one should avoid engaging in crude dehate over alternative pictures of mathematical reality. But I wonder whether a coherent anti-platonism can restrict itself to mathematics und orold Dummet's alobal approach to the Dummett's global approach to th theory of meuning. Aristotle's abstractionism may serve as a source of inspiration and should not be passed over lightly.

There are certain terminological problems which also nught to be utentioned. First, Annas says that Plato is a "'realist' in taking geometry to be encouned with abjects that geometry exist, but not in the spatio-temporal world around us". This conflates realism and between These Feelers of and platonism. In use Kreisel's oft-cited dictum: the question of rea-lism is not one of the existence of mallematical objects but of the objectivity of insthematics.

Secondly, Annas says that the geometry of Plain's time can fairly be called "Enclidean", olthough Earlid binself wrote the Elements saveral generations later. It is then said that Plato believed the axioms of "Enclident" geomotry were self-evident. Physical space is now thought to he described more necurately by a nun-Euclident geometry. Thus Annas seems to oscribe to Plato a belief in the n sweet sense of justice when an urcli-platonist. Frege, is cited in a now known to be folse of physical cribicism of Aristotle. It is as space. This is misleading, for the though, after all these years, Plato parallel pastulate, whose negating loss a chance to answer buck. space. Into is misicating, for the parallel pustulate, whose negation led to the development of non-Euclidean geometries, is duught to have been an original contribution of Euclid's. This pustulate has oroused suspleion since uncient

> Annas's work as a whole, how-Anna's work as a whole, however, is one of great eate. Her translation aims toward the literal, adapting the brusquo notellook style of the Greek text, For the reador who does not know Greek this translation provides as faithful a counterport to the Greek as the exigencies of translation will reason able allow.

exigencies of translation will reasonably ollow.

Anuns brings Arisintle's text to life and close a remarkable jab of bridging the gap between ancient and modern philosophies of muti-

Jonathan Lear



Crystallino pulterns of precipitated salts, as seen under a mini Such salt crystals are deposited an the shores of the Rift Yalky 14, In Kenya when the lake level falls, through lock of cain or loas, orution by the sun. In solution they create an unusual chemical ment, one which could kill a thicsty wildebrest but which my remarkable profusion of life. From Pyramids of Life, an Investigation of Nuture's Fearful Symmetry by John Render and Harvey County a foreword by Niko Tinbergen. Published by Collins at f6.95.

## The historian in the philosopher

ness she his early and unincessary death in 1974.

The cellures (John Worvall and Ello Zehlar) tell us that many lecture is discovered, ofter a proof mathematician who result fire earlier printed version in Journals expressed doubts that "while he the method of proof anelysis described by Lakatos mey be applicable to the study of polyhedra, a subject which is near-empirical and where the counter-examples are easily visualizable, it may be lanpplicable to late of the spoken and printed word; but it is methered by a second chepter which certies the analysis of Buler's theorem into discovering and the introved content of the spoken and printed word; but it is methered by a second chepter which certes the analysis of Buler's theorem into discovering and representation of the proof of the spoken and printed word; but it is methered by a second chepter which certies the analysis of Buler's theorem into the discovering are examined and the silence of the spoken and printed word; but it is mether by a second chepter which certies the analysis of Buler's theorem into the discovered in the form of the proof of the spoken and printed word; but it is mether by a second chepter which certies the analysis of Buler's theorem into the discovered in the form of the proof of the spoken and printed word; but it is mether by a second chepter which certies the analysis of Buler's theorem into the discovered the proof of the spoken and printed word; but it is mether by a proof of the spoken and printed word; but it is mether by a second chepter which certies the analysis of Buler's theorem into the proof of the spoken and printed word; but it is mether by the compendix which studies and the second the proof of the spoken and printed word; but it is mether by the compendix which studies and the proof of the spoken and printed word; but it is mether by the compendix which the subject of the spoken and printed word; but it is mether by the compendation of the proof of the spoken and printed word; but it is mether by the compendation of

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## Reference & pamphlets

#### Librarianship

African Studies since 1945: A Tri-bute to Basil Davidson, edited by Christopher Fyfe and published by Longman at 17.00 and 13.50 con-mins papers which were first given at a seminst in November, 1974, at the Centre of African Studies, Uni-yersity of Edinburgh, in honour of Basil Davidson's sixtieth birth-day.

## Bibliography

H. Hudson: A Bibliography ! W. H. Hudson: A Bibliography by John Payne sitemens to recurd all Hudson's important websings, including books, pamphlets, contributions to periodicals and translations as well as the important works written about Hudson himself. Pathlished by Wm. Dawson at £10.00.

### Heads of state

Poland, a chronology of the heads

## Books on war

G. S. Ensar has compiled to fibling any has compiled A lyar: Books in English 1939-the books written in English the books written in English the Second World War and the second World War and the war began. Later supplies will keep the book up to 195.

## Accountancy

University of Alabamo Press

## Poetic ills

Last Bearings in English Pactry by David Halbrack Vision Press, £5,80 ISBN 0 85478 493 4

some of Hardy's 1912-13 poems (over this, Holbrook's Latin is not quite right, but it does not matter). Holbrook is brief and inconclusive about Leavis, but he senses that Leavis's strategy of disengagement from the philosophical implications of his work may paradoxically have contributed, albeit indirectly, to the sterile cellularity of the time. This is worth pondering. British Librariaaship Todap, edited by W. L. Sananlers, is a survey of Brhish libraries which updates and replaces the volume published 111 years ago under the title Librarisaship in British Todap. it ensts £8.25 (£6.60 to members) and can be bought from the Publications Teparament, The Library Association, 7 Ridgmount Street, London WCIE-7AE.

Periodicals

The Warwick Guide to British Lulum Periodicols 1790-1970: A Cheek List, containing over 4,000 entries, has been compiled by Royslen Harthe sterile cellularity of the time. This is worth pondering.

I have left myself little space for saying why I think the book very imperfect. First, Holbronk's lioutations as a literary critic: hriefly, he is too much engaged with his theme. Doubtless one must examine the poet's "philosophy" not just his language and art; but if that becomes only a kind of impasto emiorsement of the "affirman've", or worse, a paraphrase of it, the critic's contribution is loss not gain; und I think that over the close of "Among School Children", and sometimes elsewhere perhups, Holbrook falla into this. He is also unsympathetic to sstire and to this The Warwick Guide to British Laftnar Periodicols 1799-1970: A Check
List, containing over 4,000 entries,
has been compiled by Roylen Harrison, Gillian B. Woolven and Robert
Duncan at the Cottre for the Study
of Social History at the University
of Warwick oad published by Harvester Press at 226.50.

Naval history

Naval history

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volume of the National Mucritime
Museum's Library cannogne by
M. W. B. Sanderson, which covers
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to 1815, has just been published by
HMSO at £12.00.

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American some of oor lines of intellectual communication and to show how great a prico our helicity interellist-cynicist assumptions have exoeted. Some of his laminental art Anglo-Saxan authorities (Baber, Marjarie tirene) are faoriliar names, others less so. Certainly his elforts to reactivate our intellectual landscape or extensive and varied.

That it is the bridge built across in today's reative writing (or may haw, vesterday's) that is the nerve of this boak. Hehaviourism and materialism in nur scientific and general outlook gn in literature, linitrank argues, with a cult of defensive "regism" which in the call fusters a kind of cynten in the final analysis must be taken back to a schizoid, delamanized hato and destructionism. The argument sets Panad's Macherley in n perspective of the sterilely sardonic and limiting, moves on to the "infinite voriety of forms of hate" in Hugher's Craw, and rounds off this section of the book by a severely and justly adverse account of some of the elosing poems in Larkin's Oxford Book of Twemieth Century Verse. (It is a pity that among a number of nitsprints "Larkin" that would hridge the gans that schizoid, dehumanized halo and destructionism. The argument sets in the sterilely sardonic and limiting, may be serilely sardonic and limiting of the serilely sardonic and limiting of the serilely sardonic and limiting that the rest of us neglect. Why complain of what is left undone? Because exactly this fact is the lupportant ona. This book could esslive the lobelled as derivative, even banal in a good many of its findings. But why have we no better? Precisely heeause of the situations that it diagnoses, and we neglect. What would hridge the gaus that it diagnoses, and we neglect. What would hridge the gaus that it diagnoses, and we neglect. What would hridge the gaus that it diagnoses, but at the level of the truly powerful, subtle, first-hand (I think possibly of Whitehead) is not likely to eventuate single-handsd in an intellectual series of trivially, and fragment the mass for the world of the integrated consciousness, that flobrook traces ocruss from Buber and the "new" existentialism of sartic and Heideggerlan Angst, though operations of the season of the subtle station of the season of the season of the season of the season of the subtle station of the truly powerful, subtle, first-hand it with the subtle station of the truly powerful, subtle, first-hand it with the season of the seaso

against the nunsée-existentialism (as against the nunsée-existentialism of Sarire and Heideggerlan Angst), through corresponding developments in psychology and "philosophical biology" and finally into such poelle counterparts as Yeals's "Among School Children" and

John Holloway

#### Reviewers

John Ilniloway is professor of modern English at the University of Cambridge and a fellow of Queen's College; he has recently published The Proud Knowledge and o book of poetry entitled Planet of Winds;

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M. F. KELLEHER, Sacrelory.

#### UNIVERSITY OF LONDON

SECRETARY

ROYAL POSTGRADUATE MEDICAL SCHOOL Applications are invited for the project SECRRTARY of the Royal Postgraduate Medical School of the University in London, an independent School of the University of London and the only multidisciplinary postgraduolo medical school in the Uolted Kingdom.

The staff of the RPMS numbers over 600 and in 1975/76 ine stati in the RYMS infrinces uper dut and in 1975/76 more than 1,600 pristeraduotes, spent varying iteriods in time at the Schmi. The administrative responsibilities of the pust of Secretory are therefore considerable and prefirably condidates should have relevant experience in the higher education sector or in public service.

Setary on liniversity Grude IV for Administrative Stoff: E8,106 per annum and repwards, plus 1450 per annum and repwards.

ndon Allowance.

Superannustion under USS or FSSU, as approprinte.

Further pardenists and opplication forms may be abtained from: Deen's Secretary, Royal Postgraduate Medical School, Hammersmith Haspital, Du Cane Road, London W12 0118, Telephone: 01-743 2038 Est. 350, Clusing Dete: Friday, 19 Juoc, 1977.

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## UNIVERSITY OF SINGAPORE **Faculty of Medicine**

Applications are invited for isaching appointments in the Departments of ANATOMY and PHYSIOLOGY. Condidates must be medically qualified end/or possess suitable posigraduate qualifications with relevant lesching/research experience. Gross monthly emolu-ments in the range from S\$1,390 to S\$4,750, eporoxments in the range from depending on the candidate's quelifications and experience, and the isvej of appointment pitered. The grose emoluments comprise basid salary and the National Weges Council wege allowences. In addition, the University pays a 13th-month sanual allowance of one month's eelery in December's process of the salation of the salatio of each year, and contributes to the stall member's provident lund at 15 per cent of basic selery and allow-

Candidales should write to the Registrer, University of Fingspore, Ethespore 10, giving curriculum vitae (blo-dels), with full personal particulars and also the names and addressee of three referees.

**ABERYSTWYTH** 

### THE UNIVERSITY COLLEGE OF WALES

#### PROFESSOR OF AGRICULTURE

Applications are invited for the above Chair lonable from Let October, 1978.

Salury within Professorial range, Further particulars available from the Registral, to releices, should be sent not later than 3rd June, 1977.

#### UNIVERSITY OF DAR ES SALAAM TANZANIA

## 3 Research Fellows

Condidatos muel hold e Ph O. In Economice or Business/Mensogment Studies will is blas on 
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### Assistant Research Fellow

Candidates ahould hold a good Master's degree in Economic or Monagerial Sciences. Those with a first degree and substantial reasearch capatence at a university, nellone! (government department or public corporation) or international agency will also be considered.

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UNIVERSITY OF

WESTERN AUSTRALIA

**ENGLISH** 

LECTURER/

in the Department of English ore invited from persons with exprepriete qualifications in any lickly of post-mediavat English Literature. It is especied that two appointments will be coade the english Century Literature, English Century Literature, English Century Literature, English of Aberican will be an advantage. The selary range for a "Lectarer is \$A.14.147.5A.19.569 p.m. and for a Senior Tulor \$A.12.148.5A.13.964 p.e. Houselie include superannutation similar to 135U fares to Portifice appointes and dependent lamity, removal allewance, study lesse and long-service leave and houring loan advance.

Applications to duplicate stating full personal particulars, qualifications and experience should reach the Stating Officer, University of Western Australia, Nedlande, Western Australia, 6909, by 18 June, 1977, Candidates should request three referent to write issuediately rothe Stating Officer.

SENIOR TUTOR

UNIVERSITY OF THE WEST INDIES-BARBADOS

(1) SEKIOR LECTURER/LECTURER (2) LECTURERS/ASSISTANT

EECTURERS In THE FACULTY OF LAW .

Applications are welcomed from persons with knowledge of common, law regularia. The Faculty is participally interested in applicative Law. Grimnal Law and Criminology. Revenue Law, Labour Law and Family Law. The appointees will be aspected to asseme duties by Soplember 1, 1977, or as soon as possible thereafter. Salary Scales (from August 1, 1877). Seaton terr, or as acon as possible therestar, Salary Scales (from August 1 1877).—Season Laciurer: 80318,071-29.79 p.e.; Laciurer: 80318,071-29.79 p.e.; Laciurer: 80318,071-29.79 p.e.; Assistem Lecterer: 90315,480-18,874 p.e. (21 estring = 8033,43). F.8.5.U. Unternialised accommedation will be for by the University of a rectal of 1976 of salary. A housing allowing a long the salary is payable in ostal who make their own housing are asperied. Up to live tut passages on appoint mant and on normal termination. Study and Travel Ghint. Celalied applications (etc. capies) glwing full particulars of qualifications and appelence, their of birth, methal status and the normal and addresses of their relations should be sent as acon as possible to the GCRETARY. UNIVERBITY OF THE WBST NOIES, P.O. BOX 64, GRIGOZ-TOWN, BARGAOOS, The University will sand further perticulars for this post to all apprents. These particulars may also be missing from the Inter-University Council for Higher Education Oversess, 80-91 Tottenham Court



NEWCASTLE UPON TYNE

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Applications are invited for

Lectureship in Sociology

in the Department of Human Seleviour.

Applicants strouble have a pood licensus degree in Sociology as well as a relevant postgrations qualification, preferably a higher degree. Pulotonen will also be

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also send I copy to into Univer-sity Council, 90/91 Tottonham Court Road, London W1P 9DT.

Further pullculus may be obtained from olther address.

UNIVERSITY OF

KHARTOUM-SUDAN

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DEPARTMENT OF

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PROFESSOR In Architec

4. LECTURER In Guilding

5. LECTURER In Structural

Engineering.
5. TWO LECTURERS In Opnorate Architecture.

Solary onales Professor E84,135 p.a. Lacturar £61,500-£92,400 p.a. [£1 sterling : £80,59.) The Ordish Govern-

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ENGINEERING

Applicants must be Civil Enginesis with high acudentic qualitications who have had experience of lanching, exemicit and professional practice. Experience in a device program of the experience of the experience of interest in some experience of interest in some experience of civil Engineering which is appropriate to Ensi Africa. The Civil Engineering Department is estive.

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MONASH UNIVERSITY

Mechanical Engineering

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Applications are invited for two Tutor/Senior Talor positions to commence mid 1977.

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FACULTY OF SOCIAL

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Further parliculars end application forms may be obtained from Mr. I. E. Relly, Assistant Hegister, Cornwallis

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NORTH WESTERN UNIVERSITIES

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Apply, giving names of two referee, to the Director, University of London Audio-Visual, Gentra, J. Bosford Scales, London WC10 SfA.

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STIRLING

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Further particulars bro nvolleble from The Secretary 17181, University of Strinto, Starting FKU 41A, The closing date for supplications is 13 lune, 1977.

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LEEDS THE UNIVERSITY NUFFIELD CENTRE FOR TRALTITI BERVICES STUDIES Applications are invited in the cost of RESIGNACIA ASSISTANCE ASSI An edditional vacancy has arisen for a Sonior Lecturer in Accountancy in the Department of Accountancy, and business Law litera of Department Professor J. M. S. High Volume of Accountance of Work 1s reponding manufacturer of Work 1s reponding manufacturer of Pariser davoluments in the Sonio Pariser davoluments in the Sonio Sonio Pariser davoluments in the Sonio Sonio Sonio Pariser davoluments in the Sonio The salary is within the runnic ship in the 17,961 plus Applications amai laceded gone jour autorestantial property in date under (smilts years) giving personal details, i.e. date of birth, "duration," degrees traines, qualifications ond experience, "livo relevos granquired.

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Applications are invited for foregoing from the foregoing from the foregoing Allowance, Further particulars and application form may be obtained from 0.1-589
5111, extension 1603, imperial Lolloge, London BW7 2BP,

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Universities continued

UNIVERSITY OF BOTSWANA AND SWAZILAND (University Collage

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### **PROFESSOR OF ECONOMICS**

Applicants must have a highor dogree in Economics plus considerable leaching and research applications at university level. They must have lied a senior academic poellion for some years, have some relevent experience in developing countries and have e good publications record. The eppointed will be expected to provide event leadarship in losching and the general work of the Department. While it is expected that candidates will be familiar with most some of economics, a spacial information of conomics, a spacial information of the lollowing stees would be an adventage: Public Finance: Agricultural Economics and Rurol Development; informational Trade and Finance. Appointments with be made on permanant or, in the case of expartate steff contract leans of two, four or six years.

Salary scale: P7,344-P7,838 p.s. (\$1 starting = P1.49). The 6 little Overnment as population and appointment of the condition of circulty under annual favious) and provide children's education allowances and holiday visit passages.

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### UNIVERSITY OF NAIROBI---KENYA

Applicante are invited for ritorioring posts in the

DEPARTMENT OF ACCOUNTING: PROFESSOR. Applicants should hold a higher degree with Accounting as a major subject or PhD is enother subject (normelly Economics or Business Administration) and a recognised professional accountance guilly. Administration) and a recognized professional accountency quelitication and pmierably precited esperience es en accountant. They should have had extensive teaching end euroculum development experience et both undergraduale and greduate lavéis, togettier will extensive experience in Iessarch.

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2. AESOCIATE PROFESSOR.
Applicants should bold a higher degree with nither Finance or Accounting as a major subject or a PhD in enother subject (normally Economics or Business Administration) and a racognized professional qualification, in addition, they should have had significant leaching end curriculum development asparlance at both undergratuata and gredutes levels and a racognized socompilalment in the erae of seeserch.

IN THE DEPARTMENT OF HISTORY.

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(b) Archasology: Candidetes about have edequate exportence in the argenisation of flaid survey and excevation. A general interest is the carry history of Airlica, and experience of the problems of nichaeology in the Sabel and Savana regione, would be an adventage.

(c) Competalitye Historiosi Melhodology: In addition to competence in the English language, proficiency in French or Arabio is taquired. The appolence of Competalitye Historiosi Melhodology with reference to Airlica, Middia Eastern/North Airlices History: The appolence will be expected to ieach the early Middia Eastern/North Airlices History: The appolence will be expected to ieach the early Middia Fast and Europe.

(d) Falamic/Middia Eastern/North Airlices History: The Midde East or the history of the Midde p.a. (27,446-25,255 p.a. stelling);
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### SWAZILAND (University College goiswone)

**BAYERO UNIVERSITY** 

COLLEGE-NIGERIA

Applications are invited for poste of PROPESSOR, REACER, EZNIOR LECTURER, LECTURER IN THE OEPARTMENT OF HIS-TORY.

BIRMINGHAM

THE UNIVERSITY

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UNIVERSITY OF

BOTSWANA AND

Applications are invited for II.

# PROFESSOR OF Applicanta should have had teaching experience and organic charulatily. Together with considerable research and administrative experience and organic charulatily. Together with considerable research and administrative experience. Appointment with be rease of experience terms are tor lwo, four, or six years. Selery scale: P7.344-P7.935 p.s. (\$1 stelling=P1.491. The Billiah Government may supplement selety by \$2,588 p.s. (stelling) for meritad appointees of \$2,004 p.s. (stelling) for along for meritad appointees of \$2,004 p.s. (stelling) for along for meritad appointees of \$2,004 p.s. (stelling) for along for meritad appointees and holiday visit passages. For the first completed four (ivo years), a for-floo grafully of \$35% of back salety is payable. Education allowances and holiday visit passages. Housing ellowance; (smilly possages. Becondments for experising to any supplementation echeme, a grotully of \$35% of back salety is payable. Education allowances for experising the end of the possages. Becondments for a minimum period of two years will be considered. Detailed applications (these copy is fine-type of Bolswana and smalling three referens, should be sent by alimatin, not lefor the 5 Jane, 1977, to the Register, University of Bolswana and Swaziliand, Privmor Beg 9022, Geborge, Bolswana. Applicanta resident in Un should also send one copy is inter-University Council, \$0/81 Toltonhom Court Read, London Wip DDT. Further petiliculare are evaliable from either address. CHEMISTRY

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UNIVERSITY OF

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(Chencellar College)

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### UNIVERSITY OF **BOTSWANA AND** SWAZILAND

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Applicents must hold a post-graduale Olpicolo in Librarian-ship or e degree in Librarian-ship. Those with previous experience in a university library will be given preference. Oandidales should intitoole for which post they ere epplying. Appointment may be on permanent or (in the case of supsilists eleft) contract terms. Contisole may be for two, four or six years. Salary will be in the range P4.272-P5,700 p.a. (21 storlings P4.272-P5,700 p.a. (21 storlings P1.40). Por the first completed four tiwo years) e tax-fies graluity of 25% of basic salery is psyable, itsing to 27½% for a chierd. Housing silowences; aduoualion silowences; medical elef scheme; baggage allowence; lamily passagas. Inducement silowence of 80% of basic estary (lexable) for ospatitates not qualifying for any supplements ton sobeme.

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BELFAST TILS QUEEN'S UNIVERSITY

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petence in one of the ebove oreas.
Salary: Genior Tulor \$A12,148\$A13,994 per ennum with auperannuellon. Tulor \$A9,970\$A11,795 per annum. Travelling and comoval allowance. Repairfellon: Assistance with lemporery housing. Information and application procedure evellable from the Academic Register. Monash University, Wellington Road, Claylon, Vidoria 3188, Australia, or the Association of Commonwealth Universities (Appla.), 38 Gordon Square, London WC1H SPP. Teobholost.

Ocialied applications (alx copies) including a full ourrioulum vilue and naming livres referees, should be sent by airmail, not laist then 8 June, 1877, to the Registrar, University of 
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Applicator, resident in the UK 
attoutd also sand time copy to 
inter-University. Council, 20/41 
Tottenham Court Road, Lipndon 
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The WOLFSON BRIDGE RE-Research Fellow

THE QUEEN'S UNIVERSITY

TEMPORARY LECTURERGHIP

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UNIVERSITY OF

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Civil Engineering

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UNIVERSITY OF NAIROBI - KENYA Applications are invited for

SENIOR LECTURESHIP IN DEPARTMENT OF URBAN AND REGIONAL PLANNING

Candidates should hold a good degree in Aichilacture, Engineering, Economics, Sociology or Occorphy joliowed by a two-year tull-time postgratiuate course in Physical Ptershing. They should have had not less then Sve years apprisence as a loschet in e Planning course at Univariety level. Specialisation in Transportetten Planning is dashabin. Beatary sosie: Kf2,772-Kf3,500 p.s. (Kf1 equals 21.39 significal. The British Government may supplement selary by \$3,720 p.s.

p.a. (K21 equals 21.39 storting). The British Government may supplement selary by \$3,720 p.e. (aberting) for married appointee or £2,678 p.e. (stering) for single eppointee (normally reviewed entitle) and less of the store of Research Loughberough Leicettich

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LIVERPOOL THE UNIVERSITY

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MADER IN SOCIOLOGY

THE UNIVERSITY SCHOOL OF SOCIAL STUDIES

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No forms of application are
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Bedfordshire Education Service

BEDFORD COLLEGE

of Higher Education

Applications are invited for appointment to the following post as from Saptember, 1977:—

School of Education

TEMPORARY LECTURER II

IN EDUCATION

SOUTHAMPTON-LA SAINTE UNION

COLLEGE OF HIGHER EDUCATION

**LECTURER Grade II** 

in ENGLISH

Applications are invited for the post of Lecturer in the English Department. Applicants should have a good degree in English with some experience and e strong interest in Primary Education. They should be able to contribute to elementary and advanced courses in language and the leaching of reading, as well as to the general itsesture courses of the B.Ed, programma.

The appeloiment vall data from 1 Saptember, 1977.

Applications (no forms) with the names and addressas of two retures should be sont to the Principal, LSU College of Higher Education, The Avenue, Southampton SO9 5H8.

of the Middle Years of schooling.

## Universities continued

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UNIVERSITY COLLEGE OF HWANSEL DEPARTMENT OF UDOMINAPHY vide assistance is practical maps.
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Lighter particulars may be
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Officer, University College at
Swages, Singleton Park, Swansee 8/32 814, 10 when they
should be refurged by Tuesday, May 31, 1977.

#### Fellowships and **Studentships**

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THE UNIVERSITY MANAGEMENT CENTRE DOCTORAL PROGRAMME RESEAUCH OTUDENTSHIPS

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BEDFORD COLLEGE Apolications or invited for o Tirrigial (ESPAICI) STO-DENTSIP, Condidatos estable be UEOGRAPHY GRADI(ATES And have sected interests in PHYSICAL DEOGRAPHY and Opmo-reserve operipant, Ten-

LEICESTER THE DRIVINGERY SCHOOL OF HIDDLATION SECTIONALISHIPS STEEDINGSHIPS

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Applications to the latter.

#### **Polyteclinics**

FACULTY OF ART end OESION Oopeniment of Seulplus PRINCIPAL LECTURER IN SCULPTURE

liene in Fino Ail. The person appointed will provide scedemic leaddonlip within the 8A Fine Ari | Sculptine) course and will undertake co-ordineting and sensitive responsibilities. Applicants inust be sympathetic to a wide range of work and knowledgeeble in a variety of progestees, since the Department supperies students' individual development in many areas of creative, spatial experience and ectivity. Salary Scele, £9,252 to £6,064 (bar) to £7,880, plus Riega III Award. Closing eds June 3, 1977.

Department of Accountancy e Company Administration SENIOR LECTURER IN COMPANY AOMINISTRATIO

LONDON, B.E.18

LIVERPOOL POLYTECHNIC

RESEARCH ASSISTANT

IN ENZYME THERAPY

The remember will involve an investigation of the proportion of anti-fortheenic enzymes and the designing and leading of programmer containing enzymes which possess potentially unbanched anti-hold-gene officers.

Sulary C2.127-00,539 plus C312 supplement. Please quota Ref. LP19296/20 [THES] with all applications

SOCIAL STUDIES DEPARTMENT

Research Assistant tequined to particulate to an interdisci-plinary research project audited "Economy, Secrety and Class Relations in 20th Century Morseyaldu". The post is lonable for two years from October, 1977.

The successful candidate will be expected to register for an Mithia, to undertake some teaching, and to pursue a field of research which release to some contact espect of the history of Liverpool working class between the time of the century and the 1970s. Applicants with a humanites/social colonce background will be considered. Intercet and experience in Johann Policy Would be an advantage.

Salory : £2,127-62,629 plus £312 supplement. Pleaco quoto Rel. LP 19299/10 (THES) with all applications

Application forms end lutther perficulors are evellable from Personnel Oilics, Liverpool Polylachnic, Richmond House, Juniord Piece, Liverpool, L3 9RH, Tol. 051-227 6581, Exj. 43. Closing date is louiteen days from the apposiumes of Itale

## Polytechnic

of The South Bank Applications are invited for the appointment of

### **ASSISTANT** DIRECTOR

Applicants should have ecadomic and prolossional quelifications in a subject area concained with the conelruction industries or land-usage, logaliter with succeedul experience in leaching and administration at a senior level.

Salary scale (subject to confirmation) £11,853

Further perticulers and application form from the Bielling Officer (Room 1014), Polylschale of the South Bank, Borough Road, London SE1 OAA, Tel. 01-929 8989.

ULSTER COLLEGE THE NORTHERN IRELAND POLYTECHNIC

## FACULTY RESEARCH OFFICER

Temporary until 31 August, 1978

Salary Scale: £2,689-£3,367

To assist academic steff with research projects in Business Studies. Candidates should have a good Honours Degree in Gusinese Studies or Economics. Appropriate industries or recessch experience together with a post graduate quelification would be an advantage.

The Polytechnic is a direct orani inalliation with an independent Board of Oovernors. It epened in 1871 and now has a student population of some 8,100. It has extensive new purpose-built accommodation, including 750 residential places on the tit-scre compuse evaluation in sea of Jordandown, a pleasant and quiet tectdential area. There is a scheme of assistance with removel.

Further perliculers and application forms, which must be returned by Mey 27, mey be obtained by leisphoning Whiteebbey [0231] 56131, et 2243, or by writing to : The Esleblishmeni Olficer, Ulsiar College Shore Road, Newtownabbey, Co. Anirim BT37 00B

NEWCASTLE UPON TYNE POLYTECHNIC DEPARTMENT OF ACCOUNTANCY LECTURER II IN ACCOUNTANCY

Applicants ahould have a good degree in a relevent discipling and a recognized accountency qualification.

DIVISION OF EDUCATION STUDIES SENIOR LECTURER IN EDUCATION OF THE MENTALLY HANDICAPPED

Required from September 1, 1977, or January 1, 1979, to lead a feom of specialist juliors teaching on the pre-service and in-service courses in the Education of the Mentally Hendicepped and to make n mg or contribution to the new CNAA SED Oegree Course and solabilished Certificate of Education. Applicants showld be trained Graduets Burnhym Further Education Lecturer II, £3,279 to £9,493

Burnhym Further Education Lecturer II, £3,279 to £9,493

Agnior Lecturer, £5,031 to £5,955 (Ber) to £8,417

All plue £312 and up to £190 supplements

For turther pertioulars and application form returnable by Juna 1, 0ffloer, Newsesta upon Tyne Potylechnio, Offlieen Building, Elliaen Place, Newsesta upon Tyne NE1 387.

COUNTY OF CLEVELAND Colleges of Higher Education

THE SUPPLEMENT BY

THE POLYTECHNIC

APPOINTMENT OF

DIRECTOR DESIGNATION

(Re-advertisement) Applications are invited from persons with parameteric and for industrial experience and adminitive ability for the part of Director of the Politic the institution of higher education in Cleveland is in the formed from the merger of the Research Pulytechnic and the Teesside College of Education

The turget date for the merger is 133% 1973 and the Authority intends in fill the person appointed to the part in the person appointed to the full part in the planning process.

The Appainting Committee will include 15000 tailines of the Governors of the Teesside Police the Covernors of the Teesside College of Education Committee and 150 1662. tatives from the academic world.

SALARY SCALE: £12,180 (+ £180 109162)

Application forms and further particularly the County Education Officer, Educates Wundlands Road, Middlesbrough, Cleveland to whost applications should be returning

Division of Educational Information

Applications are levited for the shove post which size in the Probe libertions that all throughous Mass, begandand, E. 15.
The Press Cilicer is responsible for afficial consection to Problems and the Press, liadle and Pr. addressible the Polystections are used and advice within the Polystection and consumers a very will addressed person to are measured in the term developing the Public Relational large and district in the latter of lights Educated large and consumers in the latter of lights Educated large and large three years expelled a introduction of lights over latter intermedical and include the work on his/her own latter. Further information and opplication forms are equilibrated like Potentials of Control Cont

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HEREFORD and WORCESTER HEREFORD and WORCESTER COUNTY COUNCIL COUNTY COUNCIL WORCESTER COLLEGE OF HIGHER EDUCATION CONNECT Drovo, Will content with BAJ Applications are inshed for a

Lecturer in Philosophy o ammence duties with effect for september 1, 1977.

Candidetes should fave substanded qualifications in Perhacostal preferably some 
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WEST SUSSEX EDUCATION EN SETANT OFFICTORS

Polytechnics continued

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SCHOOL OF ARCHITECTURE BUILDING AND CIVIL ENGINEERING

Alternative Technology Senior Lecturer

Applications are invited for a lamporary one-year Lac-turer II post in Educational Studies for the 1977/78 session, to replace a member of stall on secondment who will return at the end of this session. Applicants should be suitably qualified will experience Further details and application forms are evailable from the Director, Bedford College of Higher Education, Cauldwell Street, Bedford MK42 9AH, to be returned not later than June 3, 1977.

Lecturer II

Salary £3,279-£5,493 + Salary £3,279-£5,493 +
Supplements on all Scales
To ect as a founder member of
a research team, to carry out a
Feasibility study for a community
of 30 new low energy houses
on a cite tocently approved by
Hull Corporation. Applicants
should be qualified in Guilding
Science or releted disciplines
and should lieve a boen interest
In Alternative Technology.
Further details and application
forms from Mrs O Liddell
at the above addres to whose
completed forms should be
returned by 16th June, 1977.



BUCKINGHAMSHIRE COLLEGE OF HIGHER

High Rycombe, Hucks Bremired 101 September, SUBDIT OF MANAGEMENT STUDIES AND LANGUAGES LISTUHEN I RUSINESS STRUMS

Application strong to practical transfer of the final approximation and professional final fraction of the first of the fi

BUHOOL DE EURCATION AUD SOCIAL SCIENCE

Announcements

SUBSTANTIAL FUNDS

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INNER LONDON EDUCATION AUTHORITY

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2 appointments in

Salary \$5,031-\$5,955 (Bar)

To take over as luter of the indergledusts Alternative technology group. Applicants should be qualified in Architecture or related disciplines and should have a keen interest in developing the study of Alternative Technology in Architecture and Plemaing.

SOCIAL PUBLICACION

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LONDON COLLEGE OF TURNITURE 41-71 Continercial Houd, London El 1LA

Application form and further details abanyable from the Series the Series Administrative reflected the footone date. 30m May.

Colleges of Further Education the second strategy and some of the second strategy and the The state of the s CORNWALL

> SENIOR LECTURER/LECTURER II in MINERAL PROCESS ENGINEERING £5,523-£6,909/£3,744-£5,985 (including April 1977 supplements)

The above new post by to assis) in the dovelopment of a new degree course in Mineral Processing

Camborne School of Mines

Applicants should possess a good honours degree, or a filgher degree, or Chemical Engineering and should have industrial experience in Mineral Processing or Extracilum Merallurgy. An ability to leach the applications of computing in process design and control would be en advantage.

Details and application forms from : The Registrar, Camborne School of Milies, Pool, Redroth,

Closing date for applications : 30th May,

Colleges and Institutes of Technology

DUNDEE COLLEGE OF TECHNOLOGY Dapartment of Surveying & Building

SENIOR LECTURESHIP in QUANTITY SURVEYING

Applications are invited from persons with substantial teaching and professional experience. The person appelinted will be required to be responsible, in the capacity of Course Loses, for the operation and development of a Degree course in Oues-lily Surveying recently validated by CNAA. Applicants must have a thorough knowledge of the nature of undergraduate education; pessess appropriate academic qualifications, peleinably at post-graduate level; and hotd corporate memberation of a relevant professionar in stitution.

Salary (at precent under review) on the ecute \$8,312-£7,047 [bar]-£9,026, with initial placing dependent upon prior operi-ence. Financial essistence lowerds the oper of removal expansos elsy be payritle. LECTURESHIP in QUANTITY SURVEYING

Applications are invited from persons who are graduates and/or pricessionally qualified in quality surveying and who have a sound knowledge of the recursonance of undergraduate education. The person in propieted will be required to contribute to the teaching, speralion and prograssive development of a reconstructive validated CN.A.A Cepter course in Quantity Surveying. Although the teaching duties will cover a tange of subjects within the listed of quentity surveying. The loctures appointed will also be expected to appear listed to appear the properties are some and engage in respective. Salety [ef prosent litter review] on the soote C3.528-C0.324 (bor)-68.807 with initial placing dependent upon prior experience. Fin-sectial assistance towards the cost of temoval expenses may be psychia.

DUNDEE COLLEGE OF TECHNOLOGY LECTURESHIP in ACCOUNTANCY

Applicants should be honours graduates or hold appropriate equivalent professional qualifications; they should have practical or research experience and/or have experience of leaching at undergraduate or posignatuate level. The person appointed will be required to contribute to the general teaching of Accounting and to a specialist field, preferably in linearial or computer argumented accounting. Salory Scale (ar present under review) £3,528-£6,324 (bar)-£6,807, with initial placing dependent upon prior approved experience. Financial assistance towards the cost of removel expenses may be payable.

Further particulars and application form are objetoable from The Principal, Dunder College of Technology, Bell Street, Aundre, DDL 1116, 144 whem completed application from a significant be returned not later than Friday, Juc 3, 1977.

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Courses

enginemed accounting.

Schools Council Project: Drama 10-16

Course: Learning through Drama Five-day residential course at Wolfoon Court, Girlon Collega, Cambridge, 4th-8th July, 1977. Fee £55.00. Closing date: 2nd June.

The Course will cover : The Project's Findings; Implications for Teocher Traioing; plus opeakers on a number of reloted areas and disciplines such as: Learning as Process; The Arts io Education; Dramo in the Social Conlext; and Assessment. Application farms from: Schools Council Drama Project, 19 Laurie Grove, London, SE14 6NH, Telephone: 01-591 3934.

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Murray Park College Middlemen of Advanced Education who are Magill, South Australia

## Heads of Schools

campus in the easiern annurbs of Adeleide dose to new job as director of arts administration of the Mount Lolly ranges. Most of the top inversity, full-filme end 600 part-lime students ers surelied is to the course for intending teachers but the top. of the courses for inlending teachers but the tree eleo offare awarde in music, journalism, and Rea . "The arts, he says, receive mas-

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the section of Communication Obsorders is responsible to a 4 year course leading to the swald of a bachelo's degree in applied adence. The major area of subjection in the degree is appear to pathology, together with a luli clinical advention executable. The School of Crimmunicallen Oisorders is fo full clinical adjication programme.

liquides and applications, including the names of a

## Frances Gibb interviews John Pick who is the new director of arts administration at City University man, with lannwledge of account-ancy, marketing and the latest legislation, but who is above creative."

Arts Council committee, under Mr i Roy Shaw, more secretary-general, f It said there should be a full-time director of acts administration so-dies, with both practical experience and obility to teach and initiate research. reacherch.

Arts administrators have a poor image. Artists used to see them—as they de ucademics—as parasites on the world of the arts. In his

His most at City fulfils a recome mendation in the report on training arts administrators in 197t by an 'more creative'

> City was proposing a one-year postgraduate dipluma in arts administration, and there was scepe for further degrees within a Centre for Arts and Related Studies, which was set up early this year under Mr D. E. Jenkins.

and preferably some experience of the Dillington Arts Course in Someth subject, is that little research has

Students learn aloun organization of the arts in Britann, management, law, finance and accommancy. The diploma exempts them from the qualifying examinations of the final-time of Municipal Entertainment so they are able to work in local government.

Otak's brief was to develop the degrees by thesis. At the same timo, there are plans for e part-time MSc, there are plans for e part-time MSc.

and prelicially some experience of any administrators is the Dillington Arts Course in Something any administration.

The course is both theoretical and practical, with another spending the course in the university and one in Secondanen with an arts organization. The Arts Council gives the course and humanies to some the middle", the administrator can be the most accounted to the course and details of all research in the subject available to make a course of the course of

Whether or not arts administra-tion studies takes eff in this country, Chy's future as a centre for the subject is secure. There are plans (anniher factor in the Arts Council's decision to suppert the university) for the arts centre at City to move inte the proposed Burbican Arts Centre, where in the mids) of auditoria of The Date traion studies at City Oniversity, Mr. D. E. Jenkins.

The diploma, one of the few in arready size state subsidies and repertory size state subsidies and repertory should be companies, fer Instance, have annual shudgets of no less than £500,000 n year. There is a need for e middle of the few in the companies, for 10 places. Applicants for 20 places and the came from being director at the came from the came and the degrees by thesis. At the same time degrees by thesis. At th

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